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UNIVERSITY OF ALBERTA

WEIGHT CONTROL FOR MALES: THE TRANSFORMATION OF AN IMAGE

by

JEAN COLLINS-SMITH

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE

OF MASTER OF SCIENCE

DEPARTMENT OF FAMILY STUDIES

EDMONTON, ALBERTA

SPRING, 1990

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FACULTY OF GRADUATE STUDIES AND RESEARCH

THE UNDERSIGNED CERTIFY THAT THEY HAVE READ, AND RECOMMEND TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH FOR ACCEPTANCE, A THESIS ENTITLED WEIGHT CONTROL FOR MALES: THE TRANSFORMATION OF AN IMAGE SUBMITTED BY JEAN COLLINS-SMITH IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE.

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DATE: April 12, 1990

ABSTRACT

Obesity has been described as an intractable condition that is linked with health risks. Recently, information regarding the distribution patterns of weight as a crucial factor in cardiovascular disease (Bjorntorp, 1985) and statistics from Health and Welfare Canada (1988) suggest that not only are males at increased risk for health problems associated with excess weight but males are a neglected population of study in this area.

This study was designed to understand the experience of weight management from the male participants' point of view. A grounded theory approach was selected, as this method best fits with the purpose of the study.

Seven male subjects at various positions along the continuum from weight loss relapse to maintenance of weight loss were selected for this study. The research process involved three phases.

The core variable, identified in the study, was the definition of a realistic desired image and methods to achieve that image. The individuals who selected lifestyle changes were able to achieve the transformation; individuals who selected personal control were unable to achieve the transformation.

Seven stages emerged to encompass the process involved in weight management. The stages were (a) exceeding an acceptable weight range, (b) recognizing that social or personal expectations for weight have been exceeded, (c) seeking to meet external standards, (d) defining a realistic desired appearance in the context of enhancing well-being, (e) changing lifestyle to attain this desired image, (f) balancing lifestyle to maintain the enhanced well-being derived from

transforming one's image, and (g) seeking to optimize well-being further by seeking further lifestyle revisions.

The image a man has of himself and the availability of personal and social resources were crucial factors in determining whether males transformed their image through lifestyle changes. If the self-image was too negative, the person never made it to goal. If the self-image was positive, then there was not the same drive to define a new image. A balanced view of personal strengths and limitations and the definition of health as optimal well-being were associated with the maintenance of weight loss for males.

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CHAPTER I

Statement of the Problem

Approximately one third of the Canadian adult population between the ages of 20 and 69 is overweight (Health and Welfare Canada, 1989). A body mass index (BMI kg/m^2) greater than 27.0 is indicative of increased health risks for males. A body mass index ($kg/m^{1.5}$) greater than 26.9 is indicative of increased health risks for females (Micozzi, Albanes, Jones, & Chumlea, 1986). Data from the Canada Fitness Survey (1981) indicate that 29% of males between the ages of 20 and 69 and 19% of females have a BMI greater than 27.0 (cited in Health and Welfare Canada, 1989).

Health risks for excess weight have been associated with the following concerns: hypertension, diabetes, increased blood lipids, cancer, gallbladder problems, complications during pregnancy, and worsening of osteoarthritis (Foreyt, 1987). These risk factors have been reported for individuals with weights at 40% or more in excess of the acceptable weight limit (Garrow, 1978). Recently, the waist to hip ratio has been found to be a more reliable indicator of health risks than the amount of excess weight (Bjorntorp, 1985).

While many people can achieve short-term weight loss, poor success with the maintenance of weight loss has been reported in the literature. Stunkard (1984) reports a success rate of 5 to 25%, whereas others indicate that the rate is 3% following attendance at treatment programs (Kramer, Jeffery, Forster, & Snell, 1989). Not only are there risks associated with carrying excess body weight, but there are also risks associated with frequent weight fluctuations that occur from the

inability to maintain weight loss permanently. These risks include increased psychological distress, a reduced basal metabolic rate, and a higher body fat level that occurs with regained weight loss (Foreyt, 1987).

Despite the substantial volume of research literature dealing with obesity and weight management, there is very little information on the experience of weight management for males. As more males than females have been reported to have excess weight, investigation is needed to understand the phenomenon of weight management for males.

This chapter will include a discussion of the justification of studying the process of weight maintenance for males, the research question developed to guide the study, and the key definitions that will be used throughout the reporting of the study. This section will conclude with the delimitations of the study.

Little is known about the subjective experience of weight management for males. The majority of investigations into weight management have been conducted with female subjects (Forster & Jeffery, 1986; Schlundt & Zimering, 1988). Males and females differ in physical make-up as well as in the ways that they are socialized. The male perspective regarding weight management may differ from the female perspective. Until an understanding of the male perspective is known, needs of overweight males may not be addressed in weight management interventions.

Research into weight management has been conducted in a fragmented fashion. No literature exists on the transitions involved from going beyond weight gain to weight loss and finally to weight control. Prior to the development of effective weight control programs which meet the needs of individuals struggling with this concern, an understanding of the pitfalls and triumphs needs to be obtained.

More adult males than females are in the excess weight category for all age groups up to 65 years as assessed by the body mass index (Health and Welfare Canada, 1988). The distribution of excess weight on the body has been associated with cardiovascular disease. A waist to hip ratio greater than 1.00 is related to an increased incidence of stroke and ischemic heart disease for males (Bjorntorp, 1985). This pattern of truncal obesity is hypothesized to increase the portal free fatty acid concentration, alter the blood lipid profile, stimulate insulin production, and increase blood pressure (Larsson, Svardsudd, Welin, Wilhelmsen, Bjorntorp & Tibblin, 1984).

Males not only have a tendency for truncal obesity but also have a higher incidence of premature cardiovascular disease compared to females. Since the waist to hip distribution pattern of excess weight is predominantly a male problem, it is crucial to understand the factors related to successful maintenance of weight loss for males in order to reduce health risks.

Males' body fatness levels increase gradually from early adulthood to age 50 (Garn & Clark, 1976). The personal and family factors contributing to this pattern are not fully understood. Marriage, a routinized lifestyle, and a lack of exercise have been cited as contributing factors (Colvin & Olson, 1983). Changing patterns that contribute to weight gain are likely needed for weight loss and weight management.

It has been suggested that males are less able than females to maintain weight loss (Forster & Jeffery, 1986). Various social factors such as the delegation of tasks on the basis of gender, a crisis-management orientation to health care, and differences in the social network of males have been used to explain this observation (Jeffery, Bjornson-Benson, Rosenthal, Lindquist, Kurth, & Johnson, 1984; Forster & Jeffery, 1986; Schlundt & Zimering, 1988). Until a comprehensive investigation

of the social and environmental factors involved in weight management is conducted, weight management will continue to be regarded as the individual's problem and intervention will be at the individual level.

Information about successful weight maintenance for men is needed to improve existing community-based health programs, to recommend strategies for effective health promotion for families, and to outline self-care practices for those who have regained previously lost weight. The investigation of successful male weight maintainers can facilitate the shift in health care from a treatment to a prevention focus.

Purpose and Rationale

The purpose of this study was to develop a grounded theory to explain the interrelationship of social, family, and personal factors facilitating or interfering with the process of achieving and maintaining weight loss. As well, this study was conducted to generate propositions for future testing.

The study was targeted at male subjects who varied in the degree to which they had achieved maintenance of weight loss. Adult male subjects selected were between the ages of 21 and 50, had lost between 10-100% excess weight, had either regained part of the weight loss or had continued to maintain this weight loss, and were free of debilitating health problems.

Research Questions

Investigations regarding the process of achieving and sustaining weight maintenance from the males' perspective are needed. It is evident from the literature that the emic perspective is missing. Studies have investigated various

components of the process; however, a comprehensive investigation of the process is required to determine the quality of the outcome. Various social, family, and personal factors appear to influence the direction of the process and the outcome. Therefore, the primary research question derived from the literature was: What is involved in the process of successful weight maintenance for males?

The specific sub-questions related to this question were as follows:

1. How do men who are attempting to maintain weight describe this process?
2. What are the personal, family, and social problems/difficulties encountered by men who are currently involved in the process of maintaining weight loss?
3. What are the personal, family, and social factors described as being helpful to males who are currently involved in the process of maintaining weight loss?
4. What differences occur in the process of weight maintenance depending on the length of time the weight loss has been maintained?

Definitions

Excess Weight

A person with excess weight was classified as being either overweight or obese. Overweight for the purposes of this study was defined as a BMI (body mass index, kg/m^2) between 27.0 and 27.9. Obese was classified as a BMI greater than 30.0 (Millar & Stephens, 1987; Health and Welfare Canada, 1989). The study

participants labeled themselves as overweight or obese in accordance with these two classifications. The calculated BMI's also fit with these classifications.

Acceptable Weight Range

Guidelines for the calculation of an acceptable weight range using the body mass index (BMI) have recently been established by an Expert Group on Weight Standards (Health and Welfare Canada, 1988). A BMI in the range of 20 to 25 has been considered to be consistent with the lowest risk for health problems. The 20 to 25 range was used as a comparison to the perceptions the subjects had regarding their weight.

Maintenance of Weight Loss

Maintenance of weight loss means sustaining the weight loss within 2.5 kg (5.5 pounds) for at least two years (Colvin & Olson, 1983). For the purposes of this study, maintenance of weight loss was determined to be the control of one's weight in the acceptable BMI range.

Weight Loss Relapse

Weight loss relapse means any regained weight beyond 2.5 kg (5.5 pounds). In this study, relapse was described as regained weight that occurred because of reversion to previous habits.

Delimitations of the Study

This study was intended to describe, identify, and explain the experience of achieving and sustaining weight loss for males. The strength of the study lies in generating propositions for future testing.

CHAPTER II

Review of the Literature

There are conflicting views about the role of the literature review in a grounded theory study. Glaser (1978) suggests that the researcher should enter the setting with as few preconceived ideas as possible so that there is less chance of filtering the data through pre-existing hypotheses and biases. Then, when a conceptualization has been developed, the researcher samples the literature to expand or confirm the conceptualization derived from the data. Others suggest that the purpose of the literature review in a grounded theory study is to critique previous research; determine assumptions, biases, and unsubstantiated conclusions; and then use the literature selectively to guide the study (Field & Morse, 1985). Since it is difficult to eliminate preconceived ideas and it may be redundant to enter the field without some assessment of the gaps existing in the literature, the review of the literature in this study was used initially to clarify the study rationale and to refine the research questions. The literature review was then set aside until the analysis and explanation stages of the research.

The review of the literature will be limited to a discussion of the primary weight management issues for males. This chapter will include a discussion of the historical background of the research conducted in weight management. It will be organized under four sections: (a) the subjective or emic perspective, (b) segments of the process of weight management, (c) the role which psycho-social stimuli play in the relapse of weight loss, and (d) the implications psycho-social stimuli have on

maintenance of weight loss. The chapter will conclude with the implications of investigating the identified gaps.

Historical Background of Research Conducted in Weight Maintenance

Weight maintenance is assumed to occur when eating and activity patterns are revised to stabilize the weight one has lost. In the literature, the methods used to promote effective weight management vary. Weight management has been viewed by some authors as requiring continual effort, monitoring, and revision (Kayman, 1989; Kramer et al., 1989; Schlundt, Sbrocco, & Bell, 1989); others suggest that weight management requires effort only until it becomes habitual (Perri, Nezu, Patti, & McCann, 1989). Until weight management is looked at as a process, limited effectiveness will be achieved in maintenance of weight loss.

Historically, obesity research was concerned with the investigation of biological and psychological characteristics of weight reducers and the factors that influenced these components. This emphasis changed with evidence that environmental and social psychological factors enhanced the genetic predisposition to obesity and that effective prevention and intervention programs could reduce this propensity.

Research into obesity next focused on measuring the short-term outcome of behaviour therapy programs for weight maintenance (Bennett, 1986). Since behaviour therapy programs have reported small amounts of maintained weight loss, behaviour therapy programs have been extended to include follow-up sessions, relapse training, spousal involvement, and problem-solving components. These additional components, however, have increased weight loss maintenance minimally

(Murphy, Williamson, Buxton, Moody, Absher, & Warner, 1982). The spousal involvement component, in particular, seems to have a positive effect initially but regresses over time (Murphy, Bruce, & Williamson, 1985).

Because of the meagre results for weight loss and maintenance of weight loss in behavioural therapy programs, there has been an increased interest in investigating other ways in which family dynamics might be related to weight management (Ganley, 1986). Problems have arisen using the systems perspective in conducting research with families in a natural setting, and studies of such family phenomena are still predominantly being done in a laboratory setting.

The majority of studies investigating weight management have been conducted on participants in weight loss programs. Only one study has used subjects from the general population (Colvin & Olson, 1983). Qualitative methods are needed to explore and understand the individual's perspective.

Research into weight management has been conducted in a fragmented fashion. No literature exists on the transitions involved from weight gain to weight loss to weight control. Furthermore, researchers have failed to identify the factors that enhance or hinder the process of achieving and sustaining weight management. Until these four factors are understood, current intervention programs will continue to report limited success.

Subjective Experience

Most of the research in weight management has used experimental methods to evaluate the characteristics of individuals involved in weight management programs and the total amount of weight change achieved (Bennett, 1986). The

goals, resources, and limitations of the individuals who are attempting to manage their weights are not understood.

Subjective perceptions and interpretations are needed to understand the decisions involved in losing weight, the actions entailed in changing behaviour, and the activities required in modifying the behaviours to maintain weight loss. An understanding of the core problem experienced by individuals attempting weight management and the discovery of effective ways of handling this problem can lead to better intervention programs and longer-lasting results.

Segments of the Process of Weight Management

Studies have not been conducted to investigate the process of weight management. Instead, the literature has looked at weight management in fragmented sections that include the patterns of weight gain, short-term weight loss, relapsed weight loss, and short-term maintenance of weight loss. Understanding the transitions between each segment could provide explanations for the quality of the outcome.

Patterns of Weight Gain for Males

Genetic as well as environmental factors play a part in weight gain. Evidence from studies that have investigated genetic factors contributing to weight gain suggests that there is a strong relationship between the weight of adopted children and their biological parents (Stunkard, Foch, & Hrubec, 1986; Stunkard, Sorenson, Hanis, Teasdale, Chakraborty, Schnull, & Schulsinger, 1986). However, males' body fatness levels have been reported to fall during preschool, increase

during puberty, fall during adolescence, and then increase gradually from early adulthood to age 50 (Millar & Stephens, 1987; Health and Welfare Canada, 1989).

Clearly, environmental factors play a role in weight gain for adult males. These factors need to be identified to understand the changes required for effective weight maintenance.

Demographic factors have been cited as contributing factors for weight gain in males. Ravelli and Belmont (1979) found that 19-year-old Dutch males had high rates of obesity and that this was associated with being a member of a small family and belonging in the socio-economic classification of working class. Others have suggested that gradual weight gain for males is associated with personal and social factors such as marriage, limited nutrition knowledge, an imbalance of nutritional intake and activity, and affluence (Colvin & Olson, 1983; Millar & Stephens, 1987). Evidence in further support of demographics was indicated by the report that husbands and wives become synchronous in fatness levels due to similar attitudes about weight, intake patterns, and activity levels (Garn & Clark, 1976).

Contradictions exist in the role affluence plays in the rate of obesity. The data suggest that a curvilinear relationship exists between weight and socio-economic status. Individuals who are in the middle income group may have the highest weight because of sufficient resources to purchase food but limited time and energy for health-enhancing pursuits.

Further research is needed to investigate the demographic factors associated with gradual weight gain for males to enable the planning of effective prevention and intervention programs. This information may differentiate the 30% of males between the ages of 20 to 69 who gradually gain weight from the majority who do

not. Clearly, genetic predisposition has an influence on body weight, but this does not explain adequately the pattern of gradual weight gain for males starting at about age 20. More studies are needed to understand all of the factors contributing to weight gain, as these factors likely require change before effective weight management can occur.

Short-Term Weight Loss

It is unknown how many individuals lose weight by self-determined methods. The research predominantly investigates the efficacy of weight control programs. Colvin and Olson (1983) reported that 6/13 males studied attended a structured weight program, 2/13 credited their wives for their success, and 5/13 indicated they received no help in losing weight. This study was conducted in the general population and the number of males was small (n=13). Thus, more research is needed to determine the efficacy of self-determined methods for weight loss.

The amount of weight loss achieved in clinical behaviour therapy studies is meagre. The two strategies most commonly used to lose weight are either diet and exercise or diet alone. Increased intensity of aerobic exercise and modifications in dietary intake to lower fat and increase fibre are associated with effective weight loss (Jeffery et al., 1984). The average weight loss for behaviour therapy programs is 4.5 kg (10 pounds) and rises to 5.7 kg (12.5 pounds) with the addition of relapse training, spousal involvement, problem-solving components, and increased program length (Murphy et al., 1985; Bennett, 1986). The length of most programs was 12-15 weeks. Perri et al. (1989) tested the efficacy of lengthening a behaviour therapy program by comparing programs with the same content running either 20 or 40 weeks. Males and females attended the programs. More weight loss was achieved

in the 40-week program. However, the amount of weight loss at 72 weeks was still moderate at 9.85 kg (21.7 pounds).

It appears from these studies that weight loss averages .45 kg per week (one pound) for the first 10 weeks and then slows down to .23 kg per week (one half pound) thereafter. The data, however, only indicate the rate of weight loss for programs attenders, who for the most part are females. The rate and the amount of weight loss may have an impact on whether weight loss is maintained. Since studies on weight loss have been short-term, they do not evaluate the degree to which individuals meet their goals. Weight loss needs to be connected to the outcome of weight management using a process perspective.

Furthermore, as many persons are assumed to lose weight on their own, more investigation is needed to understand the methods and the efficacy of self-determined weight management regimens. It is not clear whether self-determined methods are more effective than weight control programs in achieving goal weight and sustaining weight loss. The experience of weight loss is most likely connected to maintenance of weight loss. If weight loss meets perceived expectations, then management of weight loss may be more likely to occur.

Weight Loss Relapse

Weight maintenance is viewed as being a problem for many individuals (Stalonas, Perri, & Kerzner, 1984; Stunkard, 1984; Schlundt & Zimering, 1988). Relapse rates for program attendants vary from 75% to 97% depending on the source (Stunkard, 1984; Kramer et al., 1989). Perri et al. (1989) suggest that clients enrolled in weight control programs frequently abandon the strategies learned once the program is completed and regain the weight lost. The few subjects that did

comply with some portion of the treatment after the program were more likely to maintain their weight loss (Stalonas et al., 1984). These authors suggest that the treatment programs are not long enough to incorporate the habits into one's lifestyle. There is a point, however, where the cost of extending the program exceeds the benefits.

Relapse for males has been attributed to factors such as social isolation, limited coping skills, a poor weight loss experience, the delegation of the responsibility for weight management to their wives, the lack of support for maintenance of weight loss from the males' social network, and less personal experience with weight management (Jeffery et al., 1984; Forster & Jeffery, 1986). Weight maintenance is therefore the responsibility of the individual.

Clearly, a process perspective is needed to determine the ways in which integration of behaviour change occurs. Personal, family, and social factors appear to play a role in whether weight loss is maintained. Programs conducted at the individual level address only personal factors during weight loss. A more comprehensive investigation of the interplay between the individual and his environment needs to be understood for weight management programs to help individuals make this transition effectively.

Maintenance of Weight Loss

Few studies have gone beyond the two-year period to investigate maintenance of weight loss. Murphy et al. (1985) contacted subjects at various points after the completion of a behaviour therapy program to compare the amount of weight maintained at the end of the program, at the two-year point, and at the four-year point (n=34). Five experimental conditions were measured: (a) attendance alone,

unmarried subjects; (b) attendance alone, married subjects; (c) contingency contracting with self, married subjects; (d) contingency contracting with spouse; and (e) spousal attendance and problem-solving components. The couples who attended together and mutually contracted weight goals had the highest amount of weight loss at the two-year point but regressed at the four-year point. No adequate explanation could be given for this regression effect. Only the unmarried individuals reversed the pattern of regained weight that occurred at week 26 prior to the four-year point and thus maintained the largest amount of weight loss.

These results suggest that weight maintenance requires autonomy, on-going management, and commitment. Investigation of the process of weight management starting from weight gain and ending with long-term maintenance of weight loss is needed to understand the transitions toward achieving effective weight management. As well, a comprehensive approach is required to determine the personal, family, and social factors involved in effective management of weight loss. This information is needed to improve current intervention strategies.

Psycho-Social Stimuli That Interfere with Weight Maintenance

The literature reports that some factors interfere with effective weight management. These included social factors such as differences in the acceptance of weight on the basis of gender, sex role stereotypes, and the lack of effective programs available for weight management. The family relationship factors identified in the literature as interfering with weight maintenance include excessive cohesion, unresolved conflict, and traditional gender roles. Personal factors that

have been cited as interfering with effective weight maintenance include limited nutrition knowledge, problems with overeating in social contexts, and sedentariness.

None of these factors have been linked with the process of weight control. Thus, some of these factors may play more important roles at some stages than others in the process of effectively managing one's weight.

Social Factors

Weight loss has been viewed as a female issue (Allon, 1979; Jeffery et al., 1984; Forster & Jeffery, 1986; Schlundt & Zimering, 1988). Excess weight is socially perceived as a lack of self-control for females and perceived to be associated with illness for males (Allon, 1979). Males do not attend weight reduction facilities to the same extent as women (Forster & Jeffery, 1986). Furthermore, health care professionals tend to give gender-differentiated advice for excess weight. Females are more aggressively advised to lose weight (Schwartz, 1984).

There is evidence that the social position of the individual more than global social evaluations affects the shape of his/her body. Hayes and Ross (1986) found that the social position affected the activities individuals engaged in, the perceived well-being from biological processes sustained these activities, and the social network of individuals protected those with excess weight from the effects of negative social evaluations.

Limited research has been conducted to evaluate the ways in which social attitudes affect the weight management of males. More research is needed to understand the relationship between social position, internal processes, and social network factors and the management of one's weight.

Harrison (1978) concludes that sex-role socialization accounts for a large part of the explanation for men's shorter life expectancy. Gove (1984) added to this conclusion by suggesting that males with fixed work role obligations experience interference with these roles if illness occurs, so health concerns are seen as important only when they become chronic. Verbrugge (1985) supported Gove's conclusion by finding that males generally report chronic health problems, whereas females tend to report milder health concerns. Colvin and Olson (1983), as well, supported this conclusion in that half of the male subjects who embarked on weight loss did so in response to a triggering critical health incident.

One reason why sex role stereotypes interfere with the health management of males has been postulated by Forrester (1986). He concluded that if the gender role stereotypes of inexpressiveness, competitiveness, self-reliance, and power are accepted by males, then somatic signals may be ignored. The conclusion inferred from these studies suggests that males who have excess weight accept traditional gender roles and may be more crisis oriented. However, another explanation for the timing of action may be related to the definition of health.

Further investigation of the ways in which sex role stereotypes interfere with weight maintenance needs to be investigated. The ways males are socialized to define health and manage their health status may be important factors in weight management.

Finally, the lack of effective programs to assist individuals in managing their weight may be a factor in the poor outcomes for weight maintenance. Males do not use self-help facilities to the same extent as females (Forster & Jeffery, 1986). It has been suggested that the male sex role stereotype of self-reliance explains the finding

that males do not use self-help methods for weight management. Insufficient research has been conducted to investigate the extent and the efficacy of self-determined methods for weight management. Investigation of self-determined strategies may improve the outcomes for existing programs.

Family Factors

Little investigation has been conducted to determine family relationship factors that interfere with weight control for males. Studies of family members' involvement in weight maintenance have occurred in a limited fashion for females and children (Sobal, 1984; Uzark, Becker, Dielman, & Rocchini, 1987). Unresolved conflict and excessive cohesion have been suggested as factors contributing to poor results for weight maintenance by females and children (Beck & Terry, 1985; Harkaway, 1985; Hecker, Martin, & Martin, 1986). The acceptance of traditional gender roles has been cited as the major factor for poor results for weight maintenance for males (Jeffery et al., 1984).

Systems-oriented researchers have found that both intense cohesion and intense conflict were linked with problems of health maintenance and health promotion (Ganley, 1986). It has been suggested that failure to address underlying family problems results in the maintenance of obesity (Beck & Terry, 1985; Barbarin & Tirado, 1985; Harkaway, 1985; Hecker et al., 1986; Ganley, 1986).

There are insufficient data available to discuss the ways in which the sufficiency or insufficiency of social support and the degree to which excessive cohesion and conflict interfere with maintenance of weight loss for males. More research is needed on family relationship factors and outcomes for weight management.

Stalonas et al. (1984) indicate that participants involved in a behavioural therapy program reported receiving positive assistance from their families in 7/36 cases, interference in 15/36 cases, and mixed support in 3/36 cases. Others have found that males who attend weight management programs with their wives do more poorly than those males who attend by themselves (Jeffery et al., 1984). The conclusion inferred by the latter authors is that if males delegated the responsibility for weight management to their wives, then they were less successful in controlling their weight.

There are insufficient data available to discuss the ways in which the degree of the delegation of responsibility for weight management to one's spouse interferes with maintenance of weight loss for males. The acceptance of traditional gender roles by males and the relationship this has with weight maintenance has never been investigated.

Personal Factors

Behavioural weight control programs operate on the assumption that excess weight gain occurs because the individual has a deficit of skills needed to achieve and maintain an acceptable weight (Schlundt & Zimering, 1988). Programs are thus designed to develop skills perceived to be required. The skills required by males for effective weight management may differ from those required by females. Until the skills and resources specifically needed by males are identified, intervention programs will have limited success.

Schlundt and Zimering (1988) found that one subgroup of overweight males had problems with overeating and made poor food choices. Colvin and Olson (1983) found that the majority of males in their study had limited nutrition knowledge prior

to weight loss and weight maintenance. More research is needed to delineate the level of nutrition information required for effective maintenance of weight loss in males.

Another problem reported as being associated with ineffective weight management for males was difficulty controlling intake at social eating occasions (Forster & Jeffery, 1986; Schlundt & Zimering, 1988). An increase in confidence to manage social situations for males at post treatment has been associated with better weight maintenance results for males (Forster & Jeffery, 1986). Research designed to investigate subjects enrolled in weight management programs does not address the problems or strategies used to effectively manage social situations. Since this factor appears to contribute to poor outcomes for weight management for males, naturalistic studies need to be conducted.

Some authors have suggested that overweight males show good control in their eating behaviour and that sedentariness was the main reason for males having problems with weight management (Colvin & Olson, 1983; Schlundt & Zimering, 1988). Again, little investigation has been conducted to investigate the outcomes for diet versus diet and exercise combinations for long-term weight management. Exercise has been associated with positive outcomes for maintenance of weight loss (Foryet, 1986). More investigation is needed to determine whether males use diet or diet and exercise strategies for weight loss and the degree to which exercise is integrated into their lifestyles post weight loss.

Various social, family, and personal factors have been cited as hindrances to effective weight management for males. The complex interrelationship of these factors needs to be untangled. Qualitative research methods are required to look

at the process of weight maintenance and the way various factors are perceived to affect the process before models to explain and predict effective weight management can be developed.

Psycho-Social Stimuli That Enhance Maintenance of Weight Loss

Colvin and Olson (1984) define successful weight maintenance as being a reduction of 20% excess body weight that is maintained within 2.5 kg (5.5 pounds) for at least two years. Others define weight maintenance as the lifelong control of one's weight within 2.5 kg (5.5 pounds) of one's initial weight loss goal (Fatis, Weiner, Hawkins, & Van Dorsten, 1989). The lack of nationally accepted weight standards has limited the investigation of weight maintenance. Given that these standards are now established, the degree to which weight loss is maintained can be assessed more adequately.

Various social, family, and personal factors have been suggested as potential factors associated with effective weight management. For the most part, however, the factors that have been investigated and reported to be associated with effective weight management have been personal factors.

Social Factors

Males between the ages of 7 and 17 who viewed being overweight as both their personal responsibility and requiring resources were more successful with weight management than individuals who either took sole responsibility or no responsibility for their excess weight (Allon, 1979). This implies that individuals require social and personal resources for effective weight management.

There is no literature to indicate the nature of the social resources that may be needed at various stages throughout the process. Investigation to determine the type of resources, the source for these resources, and the timing of resource needs is required.

Resources for weight loss may be different from resources needed for weight maintenance. Similarly, individuals who use self-determined methods of weight management may use different resources than those who attend programs.

Since weight control programs are developed to provide resources to individuals to assist them in making long-term changes, the effectiveness of these resources needs to be determined. Health promotion programs could benefit from this information.

Family Factors

Effective communication patterns, mutuality, consistent routines, flexibility, and interest in social and cultural activities have been suggested as factors that differentiate families with obese members from families who do not have obese members (Beck & Terry, 1985). Research is needed to fully understand the role that family relationship factors, family systems' maintenance procedures, and the diversity of interests of the family members play in weight maintenance. Only one study was located that investigated family environment and weight management.

Of the family relationship factors, support has been investigated more than other aspects. Perceived spousal support has been deemed to be an important factor in the maintenance of weight loss for the long term (Jeffery et al., 1984). Barbarin and Tirado (1985) conclude that differential support from family members is

required for some subjects to separate appropriate from inappropriate activities to be successful with weight loss maintenance.

The definition and dimensions of support need to be investigated to determine the ways in which support promotes the maintenance of weight loss and the potential for slippage if it is lacking. Emotional support is likely to be equally as important as information-oriented support. Advice and assistance may also be involved. Furthermore, males and females may differ in the amount and the aspects of support required for effective weight management.

Studies into family relations and weight management suggest that family patterns need to be both consistent and flexible before weight maintenance is successful (Beck & Terry, 1985). Control rather than negotiation has been suggested by another author as differentiating families with obese members who regained weight loss from those who maintained weight loss (Hertzler, 1981). Research on family structure, family relationship factors, and the relationship these factors have with weight management has been looked at in a limited fashion for children's weights. Further research is required to determine the ways in which the weights of all family members are managed.

Diversity of interests has been associated with the promotion of personal growth of family members, greater involvement in recreation interests, and effective weight management (Beck & Terry, 1985). Recreational patterns have been looked at in relation to marital quality but not extensively in relation to weight management (Holman & Jacquart, 1988). This seems to be an area that requires more investigation in relation to weight management.

More research is needed to understand the effect that family relationship factors, family structure, and the development of recreational interests play in effective or ineffective management of the weights of family members. Little is known about the ways in which families go about making changes in any of these areas. Since changes in patterns affect all of the family members involved, more research is needed to understand enhancing and detracting factors involved with change at the family level.

Personal Factors

The personal factors involved in effective weight management , as derived from an analysis of the literature, include limited previous attempts at dieting, intrinsic motivation factors, an internal locus of control orientation, and achieving positive outcomes. These factors appear to be related to self-efficacy (Bandura, 1977).

Limited previous dieting attempts. Male subjects who did not participate in previous formal or informal weight reduction programs lost and maintained more weight loss than those who had prior weight loss experience (Jeffery et al., 1984). The reduced effectiveness in weight loss for repeat attenders is likely due to a decreased basal metabolic rate. Further investigation is needed to determine the factors that differentiate individuals who maintain weight loss after one or more attempts from those who continue to attempt to lose weight, relapse, and reattempt.

Intrinsic motivation factors. Reasons given for weight management for males include a critical health incident (Colvin & Olson, 1983; Houlihan, Dickson-Parnell, Jackson, & Zeichner, 1987), discomfort with one's body (Jeffery et al., 1984; Houlihan et al., 1987), and health-enhancing values (Hayes & Ross, 1987). Since

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there is an assumption that the improvement or maintenance of health status is the major reason for weight management, few studies have been conducted to investigate other factors associated with the decision to lose weight.

Allon (1979), in an observational study of an obesity clinic run for children and adolescents, found that only in 7-12-year-old males was there no talk about overweight being a reflection of a negative body image. There were occasional references among 13-17-year-old males who lost 5 pounds; the most references were among 13-17-year-old males who lost little weight or gained weight.

Colvin and Olson (1983) did not find appearance to be a sufficiently motivating factor for adult males to embark on weight control. On the other hand, discomfort with body image has been reported to be important for weight management for males (Jacobs & Wagner, 1984; Jeffery et al., 1984). Appearance and health may be related.

Appearance seems to play a role in motivating individuals to lose weight. A negative body image or dissatisfaction with one's appearance needs to be investigated further as a factor in the decision for males to manage their weight. Improving one's appearance may be equally as important as improving one's health status. The reasons for weight loss may have a bearing on weight maintenance.

Self-efficacy. Autonomy has been reported to be needed before one can commence to lose weight (Allon, 1979). For both genders, autonomy was the most cited reason for being successful in maintaining weight loss (Colvin & Olson, 1984). Colvin and Olson (1983) found an increase in autonomy during weight loss for females. Males, on the other hand, were found to assume responsibility for change after a critical medical incident had appeared. These findings suggest that autonomy

is needed to initiate change and to persevere with the change until a goal is reached. The question that remains to be answered is whether autonomy is also related to the continuation of weight management once one's weight goal is reached.

An internal health locus of control has been associated with good eating habits and a concern for health (Hayes & Ross, 1987), yet Jacobs and Wagner (1984) found the health locus of control had no effect in differentiating obese from non-obese subjects. They did find, however, that the currently obese used food as a reinforcement event in their lives and that previously overweight subjects no longer used food for this purpose. The literature does not indicate the ways in which health values and stress management techniques are related. This may be relevant to weight control.

Studies by others suggest that efficacy is important for the continuation of weight loss. Males had greater levels of efficacy than females for weight loss; however females were more able to maintain weight loss (Jeffery et al., 1984; Forster & Jeffery, 1986). These findings suggest increases in self-efficacy may be related to maintenance of weight loss.

Successful weight maintainers not only take the initiative and responsibility for correcting their weight problems but they monitor their weight, improve the nutritional quality of their diet, and maintain a vigorous level of aerobic exercise (Jeffery et al., 1984; Colvin & Olson, 1984). The daily monitoring of weight suggests that some action is taken if weight increases or decreases beyond a certain level. Additional research is required to determine the self-management strategies used to correct weight gain and the relationship these strategies have with weight control.

Autonomy, locus of control, self-efficacy, and self-management all relate to personal responsibility for maintaining one's health. This implies that personal goals and priorities are involved with weight management. Increased knowledge of the nature of these goals and priorities would be helpful in planning health promotion policies.

Positive outcomes. The amount of weight loss required to meet goal weight and the rate of weight loss have been reported to affect continuation of weight loss in programs for females (Pekarik, Blodgett, Evans, & Wierzbicki, 1984). Minimal weight loss, a weak desire to lose weight, and low energy levels were associated with early drop-out rates. Reduced rates of weight loss and high levels of responsibility and organization were associated with late drop-out rates. No literature was located regarding the drop-out rates for males enrolled in weight management programs. This may be due to the small numbers of males who attend programs. If the rate and the amount of weight loss have an impact on the decision to continue with weight loss programs, then further studies are required to assess the role perceived outcomes play in weight management.

Studies have been conducted to evaluate the degree to which personal goals are met during participation in a weight control program for adolescents and females (Harris, Sutton, Kaufman, & Carmicheal, 1980; Houlihan et al., 1987). No studies have been conducted to date to investigate the part that goals play in continuing with weight loss for males. This is not surprising because of the assumption that males lose weight to improve their health status. This assumption reflects the cultural emphasis on treatment of disease rather than on increasing well-being. Investigation

into the extent personal goals affect continuation with weight management is an area worth pursing.

The recognition of oneself as having achieved a normal weight has been suggested as being an important factor in maintaining weight loss for adolescents (Fransella, 1970). A powerful increase in self-image, self-esteem, and self-confidence were reported to be associated with maintenance of weight loss (Colvin & Olson, 1984).

There is a lack of research to indicate the ways in which positive feelings sustain maintenance of weight loss. Further research is needed to understand the relationship between expectations and outcomes in relation to the process of maintaining weight loss.

More research is needed to understand the role personal, family, and social factors play in facilitating effective weight management for males. Until this information is available, programs will fail to meet the needs of weight loss relapsers.

Factors Associated with Sustained Weight Maintenance

Little research has been conducted to investigate the factors involved in sustaining weight maintenance for the long term. Research has only looked at weight maintenance up to six years (Colvin & Olson, 1984). Trends in the literature suggest that personal commitment to one's goals is a major factor in maintaining weight loss.

The amount of weight loss may be relevant to the long-term maintenance of the weight loss. Females who got beyond the initial 4.5 kg (10 pounds) weight loss

were more likely to continue with weight loss to their goal weight (Pekarik et al., 1984). The studies by Colvin and Olson (1983, 1984) found that the average weight loss for males (n=13) in this study was 34.6 kg (76.2 pounds) and that this weight loss was maintained for an average of 5.8 years. This implies that the greater the effort required to lose a substantial amount of weight, the greater the commitment to maintain the weight loss.

Satisfaction with one's efforts has been reported to be necessary for the maintenance of weight loss (Jeffery et al., 1984). Active involvement in regaining control after relapse has also been cited as a factor associated with the successful maintenance of weight loss. Kayman (1989) suggests that the maintenance of a new behaviour is at risk each time routines are altered. Although no studies have been conducted to test the aspects of personal commitment that are involved in weight management, it does appear that the commitment may need to be reaffirmed on an on-going basis (Kayman, 1989). Sustained commitment may be one of the many factors that differentiates weight loss maintainers from weight loss relapsers.

The relationship of personal commitment to weight management has not been investigated. As well, family and social factors may be involved in sustaining or diminishing one's level of commitment to weight management. Until the motivating factors, resources, and skills involved in weight maintenance are identified, weight management programs will continue to be marginally successful.

Summary

The gaps that have been identified in the literature are fourfold. First of all, the subjective or emic perspective has not been investigated. Secondly, there is little

literature which has described the transition from weight loss to weight maintenance. Thirdly, limited research has been conducted on effective weight management for adult males. Fourthly, we do not know the psycho-social stimuli that trigger weight gain for males (Powers, 1980; Health and Welfare Canada, 1988), the implications these stimuli have on the effectiveness of weight loss strategies (Jeffery et al., 1984; Forster & Jeffery, 1986; Schlundt & Zimering, 1988), and the role these factors play in the maintenance of weight loss.

Males have been conspicuous by their absence in weight management programs (Health and Welfare Canada, 1988). The majority of males who have been studied cite medical reasons for their motivation to lose and maintain weight loss. This leads to the assumption that males alter their health-care activities only when there is evidence that a problem exists and there is sufficient reason to change their lifestyle practices. However, this assumption is based on the fact that studies have been conducted mainly on clinical populations. It is imperative that researchers investigate both individuals who initiate these activities for medical problems and individuals motivated by other factors in order to offer suggestions and strategies for risk-prevention education.

Health-care practices are learned in part in the home. All family members have a part to play in the interpretation and transmission of health-care values. Knowledge of the ways in which the physical health of males is altered and maintained in the home environment can be discovered by listening to males discuss their experiences at various stages along the process from weight loss to weight maintenance.

Socialization practices appear to have some impact on whether weight management is personally assumed or neglected by males. Until the socialization practices that interfere with effective weight management of males are identified, health promotion programs will not be as effective as they could be. It is, therefore, imperative that the subjective perspective and the factors involved in interfering with or enhancing the achievement and sustenance of maintenance of weight loss for males be investigated. Males are at greater risk than females for health problems associated with excess weight. Since the emphasis for weight management has been treatment oriented, qualitative methods were selected for this study to understand the concerns from the participants' point-of-view.

CHAPTER III

Methodology

The purpose of this study was to explore the process of losing weight and maintaining weight loss for males and to attempt to explain the differences between weight loss maintainers and regainers. Since the task involved the discovery, conceptualization, and integration of the complex interactional processes involved in weight control into a theoretical model, qualitative methods were used.

Qualitative methods is a general term that covers an array of techniques used by the researcher to explore the subjective experience of a phenomenon of interest. These methods are used when the intent of the researcher includes describing as accurately as possible what is happening from the position of the actor; analyzing the data to search for dominant patterns; and developing and testing relationships amongst and between events, interpretations of events, and the pattern of responses these interpretations elicit (Van Maanen, 1983).

Grounded theory methods are used to conceptualize and order research data into a working theory. The study of the process of weight maintenance fits with a grounded theory method in that it is assumed something differs in the construction of the worldview between weight maintainers and weight loss regainers and that the patterns of behaviour are guided by this view. Furthermore, the literature has been guided by an illness model and gives little attention to the subjective interpretation of weight management. The subjective interpretation of weight management is needed since there are poor results for long-term success. A conceptualization explaining the differences between weight maintainers and weight regainers would

assist health care professionals in guiding intervention programs to meet participants' needs.

This chapter will include an overview of grounded theory and the principles of data collection and data analysis using grounded theory. It will also provide a detailed description of the methods used for data collection, data analysis, reliability, and validity used in this study. The chapter will conclude with specific ethical considerations relating to this study.

Overview of Grounded Theory

The purpose of grounded theory study is to explore and gain an understanding of the formation and revision of an individual's construction of reality via on-going social interaction (Hutchinson, 1986). This is enhanced with as few preconceived ideas as possible about the area.

Grounded theory is based on the symbolic interaction framework. The relevance of this theoretical perspective is the assumption that not only do individuals order and make sense of their environment, they act on the basis of these interpretations. Thus, if one can describe the problem encountered by the participants and explain the variations in processing this concern, then one may better evaluate the efficacy of current resources and programs.

In a grounded theory study, an attempt is made to identify the core variable. The core variable is a central theme that occurs frequently in the data, links the data together, and explains much of the variation in the data. The core variable may be a process, a condition, two dimensions, or a consequence (Glaser, 1978). If a process is found, then it may be either a basic social psychological process such as

optimizing one's health status or a basic social structural process such as a change in social policy toward the promotion of increased personal responsibility for optimizing health in order to cut health care costs. In the first case, the process of optimizing one's health status involves a sequence of stages that the individual undergoes to achieve a greater sense of well-being. In the second case, there is a shift in the social context which may affect the resources available for individuals to optimize their health status.

In order for a core category to be labeled a process, it must meet the following criteria: (a) there must be two or more stages, (b) a change must be evident over time, (c) transition points must be demarcated and verified, and (d) the process must account for variations in conditions, resources, and other factors. Once the core category is identified, it becomes a guide for further data collection and analysis.

Grounded theory aims to collect information in such a way as to move the analysis from the descriptive to the conceptual level, whereby the majority of the patterns of behaviour are accounted for and integrated with this central or core variable. Since the core variable is assumed to be a common problem that participants share, the processing of this problem is varied by the conditions and structure that surrounds it.

The goal of a grounded theorist is to develop a substantive theory which explains the phenomenon of interest for the selected sample. For a theory to have practical merit, it must first meet the six criteria outlined by various grounded theorists (Glaser, 1978; Stern, 1985). These six criteria are as follows: fit, relevance, applicability, modificability, parsimony, and tight integration.

Fit means that the categories are derived from the data, capture the essential components in the data, and can be revised to capture new relevant data. Any previously formed categories must earn their way into the theory and be supported with empirical data. Fit is important to reduce bias and distortion, as the data and the conceptualization must be reconciled.

Relevance is achieved if the research problem arises from the perspective of the participants and is not preconceived in the research proposal and then validated by selective gathering of confirmatory information. The formulation of the core variable and the integration of the majority of developed concepts with the core variable meets the criterion for relevance because it means that the theory captures the shared beliefs, practices, knowledge, and behaviours of a sub-group of people from a specific cultural scene (LeCompte & Goertz, 1982).

For a substantive theory to work, it must provide explanations of the daily activities, interpretations of the meanings associated with these activities, relevant predictions about future behaviours, and practical applications for the theory generated. A description of the triggering, covarying, contingent, and consequential factors relevant to the concepts generated assists with the development of explanations for the variations encountered in basic social process and thus allows for predictions to be made.

Although the basic social process is assumed to be timeless, the conceptualization is and will continue to be modifiable, given new situations, because of the constant interactions between the physical, social, and interpersonal contexts and the process. The constant search for varying conditions and negative cases

elucidates which concepts are central elements to the process and which are just coincidental.

A well-developed theory possesses only a few key theoretical constructs. This is accomplished in a grounded theory study through coding the collected incidents in three phases. First of all, there is the coding of the action in the setting, then a clustering and refinement of codes to develop categories, and finally the development of theoretical constructs which contain categories that have been collapsed together. Through the development of higher order constructs, not only does the data remain connected to the constructs but the constructs remain valid.

A tight theoretical framework has propositions that are systematically related to each other. Theoretical codes help the researcher move the concepts from the descriptive level to the conceptual level by clarifying the nature of the concepts and ordering the elements into a classification using the six C's: causes, contexts, contingencies, consequences, covariances, and conditions (Glaser, 1978).

Guidelines for Data Collection Using Grounded Theory Methods

The strategies of data collection include theoretical sampling, the use of varied methods for data collection, sampling until the concepts are saturated, and sampling to confirm the emerging conceptualization. These sampling strategies are governed by the principle that not all actors in a setting are equally informed and that in order to understand the behaviours of actors involved in a setting, comprehensive, relevant, and detailed notes with verbatim quotations are necessary (Morse, 1986).

The goal of theoretical sampling is to ensure that extensive data is collected to cover a wide range of behaviour in varied situations, relevant to the phenomenon of interest. This is accomplished by initially gathering information from subjects who are a source of relevant data, sampling specifically to saturate the categories, and then sampling to test linkages between the developed categories. In a grounded theory study, there is a deliberate attempt to seek a sample that is representative of the phenomenon rather than representative of the population. Once the pattern is established, then the researcher seeks negative or atypical cases for clarification and elaboration of the emerging theory.

The researcher collects data from participant observation, unstructured interviews, and documents. The interviews conducted in a grounded theory study are unstructured, which means that questions that are initially asked are global and continually developed during the interviews. A general question is asked to explore varying dimensions of the phenomenon of interest and then subquestions are used to probe the areas for depth.

Participant observation includes observations of the people that have volunteered to be part of the study and conversations with these subjects to discover the interpretations of either the activities observed or the experiences that are being studied. Since the perceptions of the subjects are only part of social interactions, the combination of behaviour and perceptions can help make irrational or paradoxical behaviour more comprehensible.

In some studies, observation of behaviour is not always possible. In this case, documents can be gathered to supplement the perceptions of the subjects. Newspaper reports, pictures, graphs, and other forms of documents can be gathered

to shed some light on the social context as well as provide a comparison with subjective data obtained in interviews.

Since data collection and data analysis are simultaneously conducted, the interview questions and the sampling strategy become more focused during subsequent interviews with subjects. The interview questions for second and third interviews are based on sampling for saturation of the concepts and testing hypotheses developed between and amongst concepts in the emerging conceptualization.

Although qualitative methods are predominantly inductive, there is the necessity of checking the conceptualization with the informants to develop an accurate picture of the problem and the process. Negative cases, repeated questions, and other strategies relevant to reliability and validity are used to test the emerging conceptualization.

Guidelines for Data Analysis Using Grounded Theory Methods

The principle of data analysis which has been outlined by various authors (Glaser, 1978; Miles & Huberman, 1984; Lincoln & Guba, 1985; Knafl & Webster, 1988) is best summed up as "a faithful and accurate rendition of the participant's lifeways" (LeCompte & Goertz, 1982, p. 54). Since the purpose of the grounded theory study is to build theory, then the data management activities include reduction of data into codes, comparison of incidents and clustering into categories, and synthesis or connection of the categories into a reconstructed whole. These procedures consist of reliable and valid ways of concept formation, concept development, and integration of the concepts around a core variable.

Reliability and Validity

A qualitative paradigm assumes that the phenomenon must be studied in the natural context. However, the universal principles of demonstrating truth, applicability, consistency, and neutrality for data collection and data analysis exist as they do for a quantitative paradigm. The reason for the use of different terminology is to take into account the participatory nature of the research and the lack of randomization.

Reliability

Reliability refers to the consistency, stability, and repeatability of both the data collected and the objectivity of the interpretation of this data (Brink, 1989). Lincoln and Guba's (1985) parallel terms for reliability for qualitative studies are dependability and confirmability.

In a grounded theory study, there is the assumption that the basic social process is not static but "ephemeral and changing" (Lincoln & Guba, 1985, p. 299). In order to meet the demands of dependability in data collection and data analysis, the researcher must defend the typicality of the phenomenon and account for changes that are either phenomenon-related or researcher-induced. Dependability of results is established through defensible methods of sampling, observing, interviewing, coding, and validating of the interpretations.

To meet the demands for establishing the confirmability of the data analysis, the researcher keeps a record of the decisions made throughout the process so that an independent audit can be made. The researcher keeps detailed memos which describe the conditions that surrounded the processes involved for concept formation, concept development, and the integration of the concepts.

Validity

Validity is crucial for all scientific research in that the results must have both truth value and generalizability. Lincoln and Guba (1985) have renamed these components for qualitative studies credibility and applicability because of the inability to control for the possibility that alternative hypotheses may explain the hypothesized relationships and the assumption that there are multiple realities.

Credibility refers to the adequate representation of multiple realities (Lincoln & Guba, 1985). The task of the researcher is to demonstrate that these realities are represented adequately. This is accomplished by having the participants validate the researcher's interpretations and searching for cases that will contradict the hypotheses such that exceptions are accounted for.

Applicability, on the other hand, refers to the extent that the sampling is representative of the phenomenon and the extent to which the findings can be applied to other individuals dealing with the same phenomenon. This concept is parallel to external validity in qualitative research. The difference in establishing validity for qualitative research compared with quantitative research is that the emphasis for qualitative research is on establishing the validity at the individual level whereas the emphasis in quantitative research is on establishing validity at the collective level. Furthermore, the assumption guiding qualitative studies is that the context is integral in explaining the pattern, whereas with quantitative investigations the assumption is that random sampling is integral to explain the pattern. Thus, the goal in data analysis is to discover and specify the conditions under which a relationship holds and the conditions when it does not hold.

Concept formation. The researcher examines the data, line by line, to identify the actions occurring in the data; these incidents are coded using gerunds. Codes are placed on the right hand side of the transcribed interview. Each of the codes is then compared with each other in order to cluster those that are similar and to form between 7-10 categories. The coding procedures are kept in analytic memos separate from the data and the process of raising the codes to higher levels is described in these memos.

Concept development. After the categories have been determined, then the researcher makes triplicate copies of the data and cuts up the data according to the codes and places each coded incident in an appropriate folder. During this stage of data analysis, the properties and the characteristics of the categories are determined by constant comparison. All of the incidents are compared with each other to formulate a definition of the category and to guide the collection of data in order to saturate the categories.

Integration of concepts. The core variable is discovered by comparing each category with all others to see the ways in which they connect. All the way through concept formation and concept development, the researcher looks for a higher order category under which all the categories can be subsumed (Stern, 1980). Once this higher order or core variable is discovered, the coding of new data becomes selective in that only incidents relevant to the core variable are coded. The data that has been collected is reviewed and codes modified to fit with the core variable. In addition to the refinement of the concepts, links between the concepts are hypothesized, tested, and revised. When the theoretical model can explain the

problem individuals in the setting are confronted with and the process they use to manage this problem, then data collection and data analysis are complete.

The sections outlined so far in this chapter have illustrated the general principles and strategies pertinent to the design of qualitative research. The subsequent sections will indicate the ways in which the present study was conducted.

Data Collection Methods Used in This Study

Since the research question for this study was concerned with the factors that were involved with maintaining weight loss, data collection commenced with the selection of subjects who had purposely lost weight. Non-probability sampling aims to select informants that are articulate, reflective, and willing to share information that is relevant to the needs of the study (Morse, 1989). The sequence of non-probability sampling commences with the selection of subjects who have had experiences that are considered to be typical. Then selection occurs for subjects who have had particular experiences, and finally the researcher searches for subjects with atypical experiences (Morse, 1989).

Subjects were recruited initially by posting an advertisement inviting any male who had lost weight, had maintained this weight loss with varying degrees of success, and was willing to participate in a research study to call the researcher (see Appendix A). Weight reduction facilities were not targeted, since males do not attend weight reduction facilities to the same degree as females. Moreover, weight reduction facilities generally do not provide subjects at differing points along the continuum of weight gain, weight loss, and weight maintenance. Hence, the strategy used to elicit typical and atypical subjects was to distribute the poster around the

university, in shops along a main street, in three grocery stores, on the bulletin board in several community centres, and in the classified section of one daily newspaper. The most useful source of obtaining subjects with specific experiences was by word of mouth.

Criteria for the selection of the subjects who responded to the advertisement were as follows:

1. The subjects will be males between the ages of 21 and 50. Acceptable weight standards have been established for adult males. Therefore BMI's will be calculated to determine the extent the subjects were or are overweight.
2. All of the subjects will have lost at least 10% excess body weight and either maintained this weight loss or regained some or all of the weight.
3. Individuals will be free from debilitating disorders for this study.
4. The participants will speak fluent English.
5. All subjects will be willing to participate in a minimum of three one-hour interviews.
6. All subjects will be willing to examine their experiences, to share these experiences, and to have the interviews tape-recorded.

A total of 21 subjects contacted the researcher. The respondents were screened by telephone to see if they met the criteria and were selected on the basis of their willingness to examine and share this experience (see Appendix B). An interview was set up for the subjects who met the criteria.

Sample adequacy refers to the sufficiency of variation in experiences relevant to the phenomenon of interest. The exact number of informants that would participate in this study could not be determined beforehand, since the actual sample size was determined by the adequacy and completeness of the data collected and whether the generated theory made sense. It was anticipated that seven to nine subjects would be sufficient to develop an understanding of the process of weight maintenance.

Seven subjects were selected to participate in this study. Four of the seven subjects responded to the advertisement. One subject had maintained his weight loss for four months. Another subject had maintained his weight loss for two years. One subject had regained all of his weight loss and feared he was a candidate for heart problems if he did not do something about his weight, so he thought that participating in the study might help him sort things out. The last respondent was a seasonal weight maintainer; he had participated in a study regarding the fitness level of forest fire fighters in the past and found it an interesting experience.

Three more subjects were recruited through formal and informal contacts. One subject was engaged in pursuing weight loss. Another subject had lost more than the fifty-pound range level common to all of the other subjects. The last subject had health problems related to carrying excess weight. These individuals were recruited for these specific conditions.

The Research Process

Sampling occurred in three stages. Phase one was predominantly concerned with the development of the research problem. Phase two was the stage where hypotheses were developed and tested as well as contradictory cases sought. The

third phase involved revisitation to the field to validate the theoretical model and to fill in gaps that existed in the data.

Four of the seven subjects were interviewed twice. Two of the subjects were interviewed once. One of the subjects was interviewed three times. In total, 13 interviews were conducted.

The interviews lasted between 1-3 hours with the average length being two hours. The length of interview time was the same for the second and third interviews as well.

The interviews were conducted in various locations: three in the participants' work environment, two in the subjects' homes, one in the interviewer's home, and one in a community facility. Respondents were asked to suggest an interview location which was mutually convenient and offered privacy. It was interesting that the majority of the interviews were not conducted in the subjects' homes. This may have been due to the fact that the researcher was female or it may have been a way for the respondents to maintain some sense of privacy. Two subjects were interviewed in the evening because one worked shifts and the other worked at home. The conference room setting or the community facility setting seemed to be the least desirable interview setting because it was large and impersonal.

Stage One of the research process. All interviews were in-depth, face to face, and unstructured. This provided the subjects with an opportunity to share their story and helped the researcher define the research problem from the participants' experiences. The first interview for all subjects commenced with a general question that allowed the informants to organize and discuss their unique experiences about

their weight (see Appendix C). This question consisted of asking the participants to tell their story about their weight.

The subjects were briefed on the particulars of the study and informed consent was obtained prior to taping the first interview. All subjects were offered, and indicated a desire to obtain, a summary of the findings of the study.

The first three cases interviewed were two weight loss maintainers and one weight loss regainer. One of the maintainers had controlled his weight for about five months, whereas the other maintainer had maintained weight loss for two years. The data were transcribed, coded, codes were compared, and categories were formed before more interviews were conducted. This process is described in the analysis section.

Stage Two of the research process. The next two interviews were with a seasonal weight loss maintainer and a regainer. Seasonal maintenance of weight loss occurred for all seasons but winter and part of spring. The seasonal maintainer was selected on the basis that this could be a negative case; the regainer was selected because he was not a program attender as was the previous regainer. Again the data were transcribed, coded, and codes were compared to modify the categories previously formed.

The selection of subjects was then focused on finding individuals who had different experiences from the previously interviewed participants. Since no subject interviewed had lost more than 50 pounds of excess weight and no subject was losing weight currently, contacts were approached in order to locate individuals with these specific experiences.

These initial interviews were conducted as outlined in Stage One, except that a generic diagram was available for the seventh subject to comment on. This was a useful strategy to employ, as the subject's responses to the diagram helped collapse the categories into a more manageable number of elements.

Second interviews were conducted with the first three subjects in this stage. Since there was such an excellent response by the seventh subject when the diagram was used, a flow chart was drawn depicting the process the subjects had described in the first interview to obtain validation for categories, relationships between categories, and the sequence of events pertaining to their weight. This tool was useful because the subjects could see the ways in which data from the first interview were used, they could visualize the outcome of the research, and they could correct any discrepancies in the diagram compared to their experiences.

Demographic material was gathered at the end of the second interview (see Appendix D). Some additional information was gathered with this procedure, but a great deal of the information had been covered in the first interview.

At the end of Stage Two, five diagrams were collapsed together and a composite diagram was developed. The categories were defined and the stages in the process demarcated. This led to Stage Three, which involved revisitation to the field for additional data and verification.

Stage Three of the research process. Stage Three involved obtaining second interviews with two of the subjects interviewed in Stage Two and conducting a third interview with one of the subjects. This stage of the research process was involved with verifying the overview diagram and the seven diagrams for the categories. The subjects were selected because of their position in the process. One subject was in

the process of losing weight, one subject was trying to determine a more permanent way to control his weight, and one subject had maintained his weight loss for a year.

Field Notes

Field notes are an integral part of the research, because they are the vehicle whereby the researcher describes in rich detail the influence of the context on the phenomenon, all observations made during the interview, the ways in which the researcher influences the data collection, the major themes in the interviews, and plans for subsequent interviews. Field notes were written as soon as possible after each interview was conducted to supplement the tape-recorded interviews. A form was developed to record this data after each interview (see Appendix E).

Methods of Data Analysis for This Study

The simultaneous procedures of data collection and data analysis for a grounded theory study have been outlined by various authors (Glaser & Strauss, 1967; Chenitz & Swanson, 1986; Knafl & Webster, 1988). The major concerns for data analysis are whether the codification system is set up adequately to manage the complexity of the tasks required to achieve the purpose of the study (Knafl & Webster, 1988) and whether this coding paradigm can facilitate the development, linkage, and integration of concepts around a core category (Strauss, 1987).

The processes for model development in this study involved the following activities: getting the interviews transcribed; journal writing; open coding; diagramming to collapse concepts; cutting and pasting, memo writing, and theoretical coding for category development; and diagramming and memo writing to discover a core variable, to saturate the categories, and to integrate the findings.

Transcription of the Interviews

Following the interview, the researcher listened to the audio tapes to obtain an overview and write field notes. This procedure helped the researcher form general categories that would eventually subsume the codes. All interviews except one were then transcribed by a secretary/transcriber. One was transcribed by the researcher. The interviews were labeled with the pseudonym prior to transcription to protect the anonymity of the participant.

Journal Notes

The research journal was the main tool for collecting and storing insights, hunches, reactions, plans, and current themes in the media. This journal provided a place for sorting out emotions about the topic, getting rid of preconceptions that slanted the analysis, and getting to the heart of what existed in the data. The procedure was different from field notes in that field notes were written after each interview and the journal was written daily. The content of the journal notes consisted of the following: the development of a coding paradigm; the steps taken to collect, analyse, and integrate the data; analytical memos; and diagrams.

Because of the reliance on interview material, articles that related to self-esteem, weight loss and self-management which appeared in newspapers were collected to supplement the interview data. This information was cited and discussed in the analytical memos in the journal.

Open Coding

Open coding, according to Glaser (1978) is taking data, fracturing it, and clustering incidents that are similar to raise to a higher conceptual level the pattern the data indicates. Following the transcription, the researcher took the first

interview and went through each paragraph line by line looking for key words that would capture the perceived conditions, interpretations, and actions of the participants. Although the first interview contained many concepts, one example will be used to illustrate the ways in which the coding was conducted. The label entitled "Social Rules about Weight" was placed in the right hand margin beside the section in the interview that read:

> "Like an overweight guy can just get away with it. There's no problem. Ah, yet an overweight woman has, I think, has a lot harder time."

Coding breaks the data into pieces and elevates it to a more abstract level. By giving similar incidents the same code, preconceived impressions are less likely to be applied to the data and the validity of the work is preserved (Hutchinson, 1986).

Category Formation

Thirteen concepts emerged from the first interview. Some of the codes associated with social rules about weight were positive social network reactions, commercial strategies to lose weight fast, social pressure to regain some weight, compliments from spouse for weight loss, and helping others to lose weight.

Two more interviews were completed and coded: one with a weight regainer and one with a weight maintainer of longer duration. The codes from these three interviews were grouped together to try to find themes under which all of the codes in the data could be subsumed. Differences in the codes were noted in the second and third interviews regarding social rules about weight. Some of the differences were a previous history of being teased for being skinny, joking about overweight people, hiding fat with clothes, resisting medical pressure to lose weight in spite of

health problems, and receiving spousal compliments for weight gain. These different codes were compared with the previous codes and then all of the codes were sorted and resorted until the 28 headings emerged.

Diagramming occurred throughout the whole process of category formation. The first diagram included all 28 codes from the first three interviews. The researcher then took this diagram for verification to subsequent scheduled interviews. The drawings were revised during the next seven interviews. All of the revised diagrams were integrated to create the following final categories: (a) going over an acceptable weight limit, (b) recognizing the limit has been exceeded, (c) externalizing responsibility, (d) reconciling one's actual and one's desired images, (e) working out and achieving a new lifestyle, (f) balancing one's lifestyle with one's reconciled image, and (g) seeking new challenges.

Category Development

Once the categories were stable, a coding paradigm was established. The coding paradigm consisted of dimensions in the category created from clustered codes within that category and developed from Glaser's (1978) 6 C's (causes, conditions, contexts, consequences, covariances, and contingencies). Coded incidents from all of the 10 interviews were placed in the appropriate folders and then sorted to develop dimensions for each category.

Returning to the previous illustration about the ways in which the coding system was developed, the piece of data that was initially labeled "Social Rules about Weight" which was placed beside "Like an overweight guy can just get away with it. There's no problem. Ah, yet an overweight woman has, I think has a lot harder time" was recoded as inequitable social rules about weight according to

gender and then ultimately recoded as recognizing/social conditions/inequitable treatment of OW according to gender. Recognition was the category that included the awareness of either personal or social sources of conflict. Labeling the subcategory social conditions suggested that there were context factors that helped or hindered the recognition of sources of conflict. Lastly, labeling the incident as inequitable treatment of excess weight according to gender depicted the substance of the incident.

Analytic memos relevant to each of the categories were written to develop definitions, describe influencing conditions, and sort out the properties of each category once they were established. Up to this point, the memos were predominantly about the process involved during category formation.

Category development memos were written to determine the properties and phases involved in each category. As well, memos and diagrams were developed to assess the degree of saturation and sequence for each of the elements in the categories.

Discovery of a Core Variable

The core variable is determined by continually asking questions of the data. These questions revolved around the identification of the perceived problem that the participants were confronted with and the ways in which the participants coped with this problem. When the researcher asked what the problem was that the participants were faced with and how they processed this problem, what emerged was that almost all of the participants did not feel good about their physical selves when they had excess weight, and the transition from weight loss to weight

maintenance involved finding effective and lasting ways to feel better about one's physical self.

The core variable for this study was confirmed during the round of second interviews. The process was described by the participants as "realizing who one is and becoming what one desires to be," "being true to oneself," and "trying to finding oneself." This link pulled all of the categories together and explained the difference between the weight maintainers and the weight regainers. Central to the process of reconciling one's lifestyle with one's desired image of self is the formulation of a constructive self-concept which assists one in developing an accurate image of oneself and motivates one to develop one's capabilities.

In addition, this core variable explained variations in the data, particularly with subjects who had a negative global image of themselves or a positive global image of themselves. These two views hindered the development of a re-defined desired physical image of self because an accurate image of one's actual or desired self could not be formed.

Integration of Concepts Around the Core Variable

After the core variable was identified, each of the categories was linked with this core variable. The illustration that was recoded as recognizing/social blocks/ inequitable treatment according to gender was put in the folder labeled recognition with a memo that illustrated the connection of the category to the core variable. The memo hypothesized that there was recognition of social and personal expectations about weight when one reached a certain weight range; if these expectations were valued enough, then the consequence of this discrepancy was the development of a poor physical image of self. The labeling of social blocks

suggested that not only may certain factors interfere with the recognition of this conflict for males but that some factors may facilitate recognition. The data were reviewed to seek out these factors.

Relationships between the categories and between elements in the category and the core variable were hypothesized. Validation interviews were conducted to test these hypothesized connections during the third phase of data collection.

Development of the Theoretical Model

Once the core variable was linked with the major categories, an overview diagram of the process and diagrams of the elements involved in the categories were drawn. These diagrams were taken for validation in the third phase of data collection. Eventually at the end of the validation stage, each of the categories was at the highest level of abstraction given the data and then concepts in the literature were compared with the developed model for further refinement.

Procedures Used to Meet the Demands of Reliability and Validity

The procedures to meet the demands of reliability and validity for a qualitative study as noted in a previous section of this chapter are different from those in a quantitative study. Measurement and control are not the goals of a qualitative study; rather, the identification of typical patterns and an understanding of the conditions and settings that contribute or alter these patterns are the objectives for a qualitative study. The next section will discuss the procedures used to meet the conditions of dependability, confirmability, credibility, and applicability.

Dependability

Dependability refers to the appropriateness of the process of inquiry. The procedures used by the researcher to meet the standards of dependability during data collection and data analysis were as follows: methodological decisions were explicated in a methods journal, early closure was resisted until the majority of the codes in the data could be subsumed under a category, alternative hypotheses were generated for testing, and negative data was collected as well as data to support the hypotheses generated. These procedures allow for the accounting of change due to instability, phenomenon aspects, or design effects.

Confirmability

Confirmability refers to the accuracy of the findings, the interpretations of the findings, and the conclusions inferred from the findings. The problems associated with non-probability sampling include the following: researcher effects, subject self-selection, context effects on the nature of data revealed, and researcher bias. As well as the use of strategies to meet confirmability in data collection, strategies for confirmability used in data analysis need to be articulated.

For this study, the following procedures were used to address the concerns associated with non-probability sampling. First of all, the role of the researcher was as a participant observer (Burgess, 1984). This meant that the researcher made it known to the participants that research was the overriding issue. Since the majority of the data was collected by interview, this allowed for the possibilities of researcher overinvolvement and researcher bias to come into play. The ways in which these threats were managed were to include the interview questions in the transcribed interviews so that leading questions could be identified and to use diagrams outlining

the interpretations of the stories so that each participant could correct the researcher's biases.

In order to identify the characteristics of the informants who provided the data and to determine those that were precluded, the researcher carefully described the individuals who provided the data. A negative case consisting of one subject who did not fit with the emerging typical pattern was sought. As well, the researcher sought individuals with specific experiences to ensure that multiple perspectives and a variety of experiences were included. The sample thus included variations in experiences with weight loss, weight maintenance, and regained weight.

The field notes were the vehicle used to specify the settings where the data were collected. This detail was needed because what people say and do is assumed to vary with the context. The description of the settings included mostly physical data, because the subjects were not observed in a social context. Articles from the local newspaper were used to provide social context material, but no supplemental data from the interpersonal context was available.

The researcher's underlying assumptions can influence the collection as well as the analyses of the data. At the beginning of the study, the researcher was so caught up with weight maintenance that the experiences of weight regain and weight loss did not seem relevant. The methods that can reduce the effects of researcher bias include peer examination, verbatim accounts of the information provided by the informants, and participant review of the findings. Periodic thesis committee meetings were conducted throughout the study to assess the researcher's interpretation of the data. The findings included numerous examples of verbatim quotations to support the interpretations made. Finally, selected participants

reviewed the diagrams that depicted the synthesis of the data and the factors that enhanced or diminished the transitions for distortion.

Credibility

Credibility means that the categories developed have similar meanings for the participants and the researcher. The procedures involved in this study to meet this objective were that data were collected in stages that exceeded six months, a wide range of experiences were sought to reduce selectivity effects, and researcher self-monitoring.

Prolonged engagement in the field allowed for the reduction, comparison, and refinement of concepts such that they could be tested and revised to match the participants' viewpoints. Multiple interviews reduced the need for the participants to reveal themselves in the best light, because rapport could be developed.

A wide range of experiences was sought to establish the pattern of weight management. Each of the subject's experiences was compared and integrated with each other to account for all of the experiences. This accounting for all of the participants' experiences increased the credibility of the process as being typical. Even the negative case fit some of the categories.

Researcher self-monitoring for reactivity during interviewing must be assessed. As well, informants may become dependent on the researcher for motivation to continue with the process or to assist in solving the problems encountered in weight loss, and this effect needs to described. The procedures for assessing researcher reactivity during interviewing were to extract the questions used in the interview and to assess them for the degree of leading, closed, and evaluative questions. In subsequent interviews, strategies were undertaken to reduce these errors. As for the

issue of being a motivating agent for some of the subjects to maintain weight loss and a potential resource for others to assist them in losing and maintaining weight loss, this was handled by the clarification of the researcher's role as one of understanding the range of experiences related to weight management rather than evaluating the degree to which individuals met their goals. Since each of the participants could see by the stages of the diagrams developed that personal solutions would not be offered, the relationship became more of a collaborative venture that met both the researcher's and the participants' needs.

Applicability

The objective of applicability is to gather and report detailed aspects of the phenomenon of interest by taking the context into account. The measures taken to meet the requirement for applicability in this grounded theory study involved taking the following effects into account: selection effects, setting effects, history effects, and construct effects.

The characteristics of the sample were identified for comparative purposes. These characteristics included demographic as well as experiential characteristics of the subjects involved in the study.

Concepts generated in one context may not be comparable to concepts generated in other contexts. The reactive observer effects may limit the comparability to other groups who have been investigated in a comparable manner. The collaboration in this study requires that comparative studies take this feature into account.

Some history effects during this study were identified during the analysis of newspaper reports. In particular issues regarding commercial weight loss methods,

exercise, seasonal attempts at weight loss, success stories, the encouragement of self-management, and strategies to increase self-esteem were clipped from the paper during the process of the study. These reports provided observations from the current social and cultural perspective and were important for comparative purposes.

Finally, the concepts generated must involve meanings that can be shared across time, settings, and populations. The concepts generated in this study fit with the concepts that are used for problem solving and management. They are not idiosyncratic enough to be relevant only to this study.

In conclusion, the methods used in this study to meet the demands of reliability and validity do not approximate perfection. Given the complex nature of researching a phenomenon in a natural setting, these methods were employed to enhance the rigor of the findings and the analysis of this study as conscientiously as possible.

Ethical Considerations of This Study

Ethical clearance for this study entailed a review by an Ethics Review Committee as outlined by the Faculty of Home Economics. To ensure that the participants were given sufficient data to make an informed choice on whether to consent to participate in this study, the researcher discussed with each prospective informant: (a) the purpose of the research topic, (b) the time commitment required for participation, and (c) their right to decline to participate in the study, to refuse to answer any questions, and to withdraw from the study at any time. All subjects were required to sign an informed consent form before the interview commenced (see Appendix F).

The subject's anonymity was protected by selecting a pseudonym at the first interview. This pseudonym was used during the interview, in the transcripts, and in the field notes. Informant confidentiality was kept by discussing the information obtained from the subjects only with members of the thesis committee. Verbatim quotations were used in the final thesis report, but no pseudonyms were included with these quotations. The importance of keeping the subject matter confidential was discussed many times throughout the process until the secretary/transcriber voiced an understanding of the reasons for this necessity.

All data were duplicated and kept in a locked file cabinet. One file cabinet was at the university and the other was at the home of the researcher. If these data are to be used in the future, the appropriate ethical committee's approval and the participants' approval will be obtained as necessary.

Pictures of the informants were too personal and were either not brought to the interviews or not given to the researcher for copying. The pictures that individuals did bring were used as a basis to stimulate discussion.

One subject asked that certain parts of his interview not be used in the data report. This request was respected.

Ethical considerations were confronted by the researcher throughout this study. As indicated by Munhall (1988), researchers need to reflect on the research participants' aims and norms as much as their own in order to describe and report the findings in the most authentic way. If the findings are authentic, then the human rights of the participants have been considered and met along the process.

CHAPTER IV

Findings

Glaser (1978) states that a core variable can be any theoretical code but that a core variable which is a basic social psychological process can account for the majority of the behaviour patterns of the participants as they work through that which is a problem to them. The core variable found in this study was the basic social psychological process of transforming a negative physical image of self into a more positive image by attempting to master weight control. The image transformation was achieved for some of the participants by reconciling their desired mental image of themselves with their actual physical appearance, forming a concrete image to strive toward, and empowering themselves sufficiently to achieve and maintain this image by permanent adjustments in their lifestyles.

In this chapter, the characteristics of the sample will be described and then the seven stages involved in transforming one's image will be outlined followed by a discussion of facilitating and detracting factors for each stage. The section will conclude with the description of a negative case who did not have a poor physical image of self and thus did not fit the general pattern.

Sample Characteristics

Seven male subjects constituted the sample for this study. All of the seven subjects' weights were either in the overweight or obese categories. A calculated body mass index (BMI) between 20-26.9 is considered to be a weight associated with minimal health risk for males. A BMI equal to or exceeding 27.0 indicates the

classification of overweight and a BMI equal to or over 30.0 indicates the classification of obese (Millar & Stephens, 1987; Health and Welfare Canada, 1988). Table 1 provides the ages, marital status, and calculated BMI values for the highest reported weight, the weight at the end of weight loss, and the current BMI for the subjects in this study. Although the subjects' weights and heights were self-reported, four of the seven subjects reached an acceptable BMI following weight loss. Three of these four subjects were still at an acceptable weight range when they were interviewed again. All of the weight loss regainers maintained a weight less than that recorded for their highest weight.

The length of weight maintenance for the subjects interviewed is summarized in Table 2. The period of weight maintenance was self-reported by the subjects. Of the two that reported on-going weight maintenance, one subject maintained his weight loss for a year (D) and another subject maintained weight loss for two years (K). The remainder of the subjects had either regained all or part of their weight loss (J, E, Y). Two have plateaued (M, U).

The subjects were Canadian-born and came from various western European and Russian backgrounds. In addition, the average education level of the participants was post-secondary education in a vocational trade. The average income reported was in the range of $25,000-$50,000, which is similar to the average income of $30,000 reported for this city.

Overview of the Weight Maintenance Process

The overview of the stages involved in the process will consist of a brief encapsulation of the transition from losing weight to either regaining weight or

Table 1: Age, Marital Status, and Body Mass Index of the Sample

#	Age	M/S	Ht	BMI at Highest Weight	Post Wt Loss BMI	Current BMI
D	30	M	182.9 cm	30.5	21.0	22.1
J	46	M	182.9 cm	28.9	26.6	28.9
K	40	D	185.4 cm	29.1	23.5	24.6
M	30	M	182.9 cm	27.8	22.3	23.9
Y	35	M	180.3 cm	53.4	38.0	46.4
U	22	S	185.4 cm	37.0	30.4	33.1
E	31	M	175.3 cm	32.0	27.6	30.5

BMI = kg/m^2

Table 2: Length of Weight Loss Maintenance

#	Date at Highest Weight	Last Weight Loss	Maintenance Period
D	September 88	Nov. 88-Feb. 89	March 89-
J	Summer 86	Sept. 86-Apr. 87	June-Dec. 88
K	January 87	Feb. 87-June 87	Fall 88-
M	Age 17 - 74	Each May	Plateaued
Y	Winter 88	Feb.-June 88	July-Oct. 88
U	Age 17 - 85	Sept. 89-ongoing	Plateaued
E	Fall 87	Jan.-June 88	June-Sept. 88

mastering weight control. Influencing conditions involved in each stage will be detailed in the subsequent sections.

Figure 1 illustrates the model of managing one's negative physical image by attempting to master weight control as revealed by the data. The stages are ordered and linked to illustrate the two prongs of the process of either ineffectively or effectively managing to transform one's negative physical image.

Seven stages emerged to encompass the sequence of events involved in weight gain, weight loss, and weight maintenance. The first stage involved gradual but unperceived weight gain that exceeded either personal and/or social standards of an acceptable weight. Once the excess weight was recognized, the subjects entered Stage Two and selected to avoid confronting the problem, to assume personal responsibility for correcting an identified negative body image via lifestyle revisions, or to look for a way to get rid of the weight expeditiously. Unfortunately, the expedious route or Stage Three involved restraint diets which brought forth physical and psychological costs when weight loss was regained. Individuals were thus left searching for a more effective way to permanently control their weight. When the subjects realized that weight control entailed determining a realistic desired physical image as well as a vision of a more enhancing lifestyle, they entered Stage Four. Stage Four involved choosing to live by self-determined goals and values, accepting one's self in spite of one's limitations, realizing that one was responsible for optimizing one's potential, developing a workable plan, and empowering oneself to achieve one's desired goals. Implicit in this stage was the value of wellness. Changing one's lifestyle or Stage Five involved the development of intake, activity, and social patterns that could be sustained with modifications for the long term.

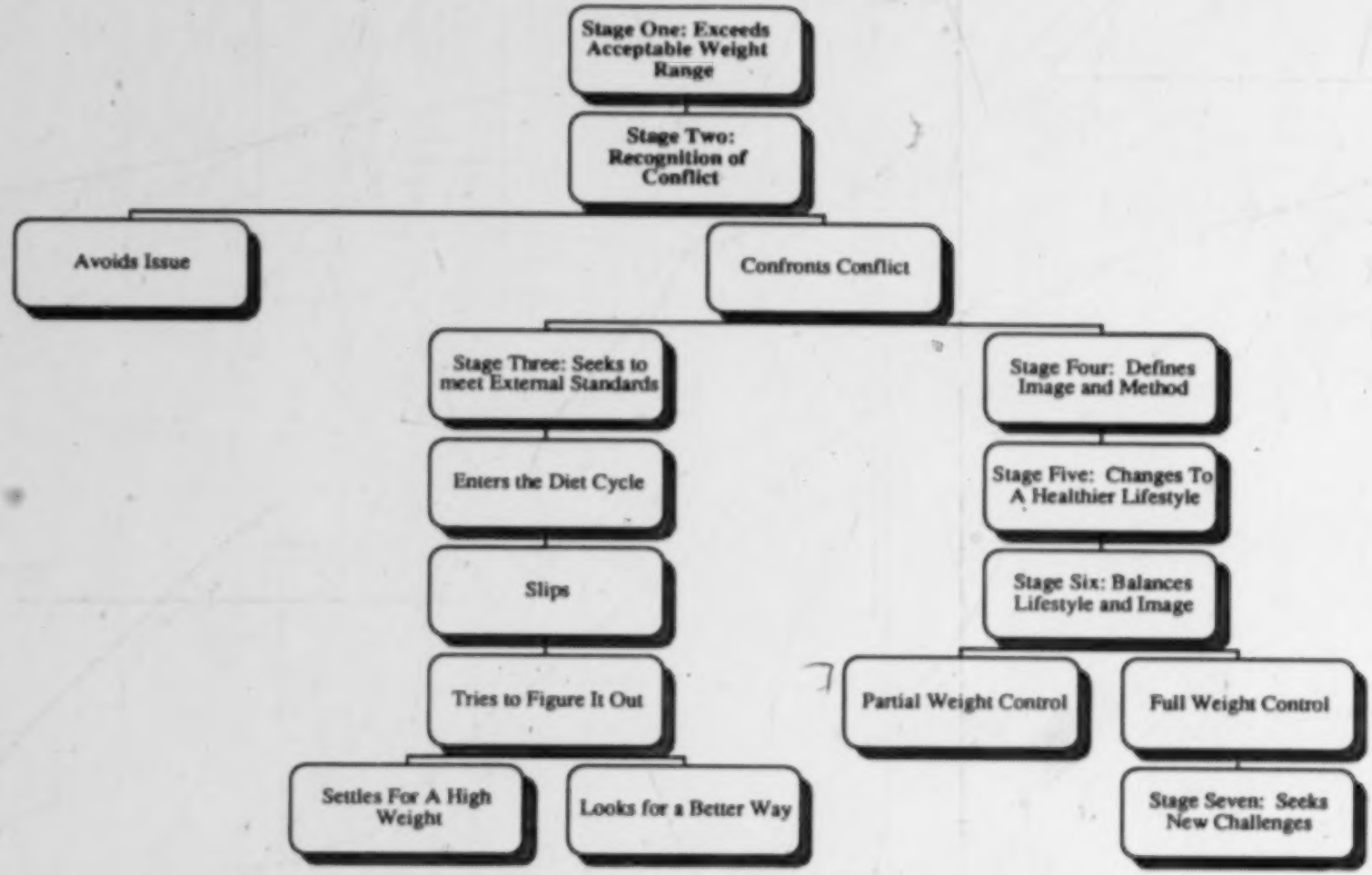
Stage One: Exceeds Acceptable Weight Range
Stage Two: Recognition of Conflict
Avoids Issue
Confronts Conflict
Stage Three: Seeks to meet External Standards
Stage Four: Defines Image and Method
Enters the Diet Cycle
Stage Five: Changes To A Healthier Lifestyle
Slips
Stage Six: Balances Lifestyle and Image
Tries to Figure It Out
Partial Weight Control
Full Weight Control
Settles For A High Weight
Looks for a Better Way
Stage Seven: Seeks New Challenges

Figure 1: Overview of the Process

Since the majority of the subjects were married, the development of these patterns involved negotiation, agreement, and collaboration with their spouses. Balancing one's lifestyle with the feelings of increased well-being that occurred from transforming one's image was determined to be Stage Six in the process. Balancing involved daily monitoring of one's weight, correcting small amounts of weight gain, and reaffirming the benefits from enhanced well-being. The outcome of this stage was freedom from conflict and an increase in personal resources sufficient to attempt new health-enhancing challenges. Stage Seven, or the determining of and working toward accomplishing new health-enhancing goals, involved confidence in mastering weight control, the desire to master other perceived detrimental health habits, and the belief that one could further maximize one's state of well-being. Maintenance of weight loss is sustained with the on-going commitment toward optimizing one's well-being.

A brief overview of the activities in each stage will be discussed. This will be followed by a discussion of social, family, and personal factors that enhanced or detracted working through the activities for each stage. As well, each stage has a diagram that provides an overview of the enhancing or detracting factors.

Stage One: Exceeding An Acceptable Weight Range

All individuals in this study started the process of managing a negative physical image of themselves by exceeding an acceptable weight range. During this stage, the person initially did not perceive weight gain because it was gradual.

> I just consciously didn't realize I was getting bigger. I guess unconsciously I knew I was getting bigger, but . . . how can you put it? I knew I was getting bigger, but I didn't know I was getting bigger at the same time. (U)

> It really is gradual. It wasn't like I was 180 one week and 220 the next week. It was a gradual thing. (D)

Four of the seven subjects started the gradual process of weight gain at puberty, two subjects started after marriage and/or around age 30, and one subject gained weight post marital separation and divorce.

> . . . most of my life I have been fairly active. I have never had weight as a problem and it was something that sort of happened to me at that 32-38 spread there . . . . I've had some [bad] times, like everybody else has had, in my personal life . . . . I may have eaten my way into it. (K)

The key element involved in going over an acceptable weight limit was the distancing of one's negative feelings with the consequence of being unable to perceive, interpret, and/or revise habits involved in gradual weight gain.

> . . . sometimes when I'm depressed, food gives me something. You're not depressed any more. You feel good. You ate something that tasted good . . . . It could be anything, from a sandwich to a piece of cake to ice cream. (Y)

As one subject indicated, the strategies for distancing were only temporary measures because they added problems rather than solutions. Eventually the person could no longer ignore the gradual process of weight gain and moved to the next stage of recognition.

> It's like getting your car fixed. You just keep pushing it away or just finally get the problem fixed and that's it. Or you let it get bigger and bigger and bigger. (U)

Exit from this first stage had to do with no longer being able to purchase fashionable clothes, going beyond a certain pound mark, and recognizing negatives associated with weight gain.

> I go to a store and I can't buy a pair of pants because I'm one size or two sizes too large for it. I guess my goal is to get down to a nice weight where, although it might be a big size, it's still in the regular Levi's store. (U)

> . . . once you get over the 200 pounds, then you get sluggish. I'm too fat. I feel that. (J)

Detracting and Enhancing Factors in Stage One

Figure 2 indicates the factors involved in blocking and facilitating the perception of gradual weight gain for males. The participants cited personal, family, and social factors as components involved in distancing themselves from their feelings and not perceiving gradual weight gain.

Detracting Factors to Perceiving Gradual Weight Gain

Detracting factors in the perception of gradual weight gain were gender differences in the amount of excess weight that was tolerated, overeating patterns learned from one's family of origin, and the use of food as a coping method to reduce stress. Examples of these factors will be included to illustrate the properties of this stage.

Social norms. Two social conditions contributed to males not perceiving the fact that they were going over an acceptable weight limit. These factors were gender differences in the amount of excess weight that was tolerated and social taboos against commenting about excess weight directly to those who are overweight.

Gender differences in expectations for external appearances included complacency about excess weight for males, the expectation that many males gain weight with age, and a social preoccupation with the weight of females.

> . . . an overweight guy can just get away with it. There's no problem. Yet an overweight woman has, I think, a lot harder time . . . . I just think that society will let men slide by being overweight, though in yourself you know that it's not right, that you wish that you were thinner. (D)

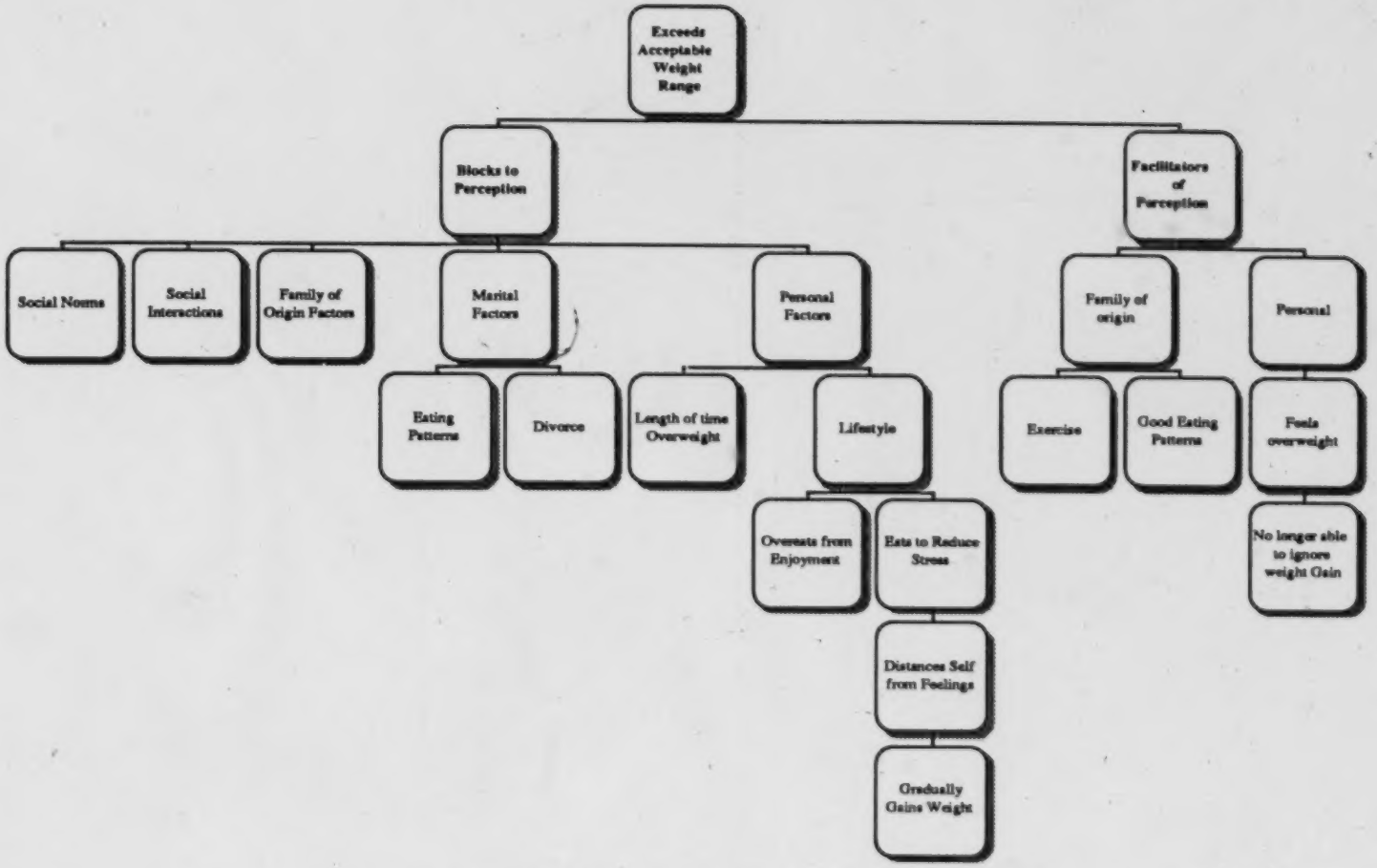

Figure 2: Stage One: Exceeding An Acceptable Weight

> People accept aging as a fact of life and that certain things are going to happen to you because you're getting old. And one of those things just happens to be, is you develop this paunch when you're 35 or 40. (K)

These factors diverted attention from the person's awareness of increasing weight because either they had sufficient status such that they didn't have to worry about their weight gain or they believed that weight gain came normally with increased age. Many commented that their excess weight in adolescence did not interfere with their getting dates or obtaining jobs in adulthood.

Social taboos against friends directly commenting about one's increasing weight interfered with the ability to perceive at an early stage that one was gradually gaining weight. Social comments tended to be about weight loss rather than weight gain.

> I have a friend; his little boy is three. He asked me, "How come you're so fat?" I honestly say to him, "Because I eat too much. . . ." His father and I had a discussion. He said, "If he ever says anything like that to you, I wanna know." I said, "Why?" He said, "I don't think it's right." And his father and I are really good friends. But I said to him, "Well, I'm not gonna tell you because I don't think you should chastise your kids for that." (Y)

> I find that people won't see you for two weeks or three weeks and they'll think you've lost weight. And they'll say, "Hey you're lookin' good; you lost some pounds there." And you say, "No, no," or you go, "Yeah, yeah, I guess so. Thank you very much." But then when you start thinking about it, you're going "No, I haven't. I probably gained weight in the last two weeks." (U)

Social norms of commenting on the positive interfered with the participants' recognition of their weight gain. Inaccurate feedback about one's weight status interfered if the individual did not have an accurate picture of himself.

<u>Social interactions</u>. Some of the interpersonal factors associated with gradual but unperceived increases in weight were feeling socially isolated, focusing on work,

and having both thinner and heavier friends. During social isolation, some of the individuals choose food or TV or both to cope. This strategy would have further social consequences once one's excess weight increased.

> So anyway, I guess it's just a reason for trying to hide the problems and forget about it . . . I don't know, maybe things like not getting invited to parties, or not being able to do things with people. You know, trying to hide your frustrations . . . . So, I would just go home, you know, and watch T.V. It's so easy just to watch T.V., and have a bite to eat, and then forget about what you're eating and then keep eating and eating so you become a couch potato. (U)

> How do I relax? I go to the mall. I snack. (E)

In other cases, especially post divorce, work became the major focus in life. Strategies were used to reduce the stress rather than worrying about the ramifications of the strategies used.

> I had been very busy at work, and I had not done a lot of physical sort of activities--because I got busy to begin with and I never fitted it in. I got caught up in the, you know, you're indispensable. I got caught in the treadmill and just never stood back and looked at it, and I was working 60-70 hours a week doing project planning. I wasn't putting in any time for myself any more, and I just pumped all my efforts into what I was doing for the job. (K)

When some subjects had male friends on a continuum from thinner to heavier than themselves, this seemed to reinforce the feeling that their weight was fine. Not one subject had only thin male friends or associates.

> They've got a little pot, like most people do . . . . A lot of them are like me, you know. You seem to attract the same type of people that you are. (J)

<u>Family of origin factors</u>. Two family of origin factors that interfered with males perceiving gradual weight gain were the existence of overweight family members and family of origin's food preparation and eating patterns. These two factors encouraged the idea that one's excess weight was one's fate.

> . . . the brother next to me is overweight. I don't know how much. I haven't seen him in a couple of years. He's probably 40 or 50 pounds overweight, at least. The next brother is probably 20, 25 pounds overweight. And my sister is probably, I'd be guessing, about 60 or 70 pounds overweight. Then I have a brother who is in extremely good physical condition. (Y)

> Both of my parents are a bit overweight. My mother is actually quite overweight. My dad was weighing about the same as me, only he's about an inch taller. (E)

All but one of the subjects mentioned that they had overweight family members in their family of origin. Three subjects discussed other family members who practiced regular exercise but indicated that these individuals were exceptions to the pattern.

Similarly, eating patterns were mentioned as a factor in not perceiving gradual weight gain. Eating was associated with having a good time in a couple of the subjects' families.

> . . . my own family is conscious, I think, of having a good time with food. Like it's part of having a good time, and there seems to be this constant hang up of, are you having a good time? I'm not quite sure where it comes from. I have an idea it might be from the Second World War. (E)

Food preparation methods and family of origin eating patterns were discussed by two other participants as contributing to the insidious but unperceived gradual gaining of weight. Food patterns were discussed as being passed down without the adjustment for reduced amount of activity. As well, food was mentioned by some of the subjects as a form of recreational activity.

> . . . we're not born fat. I guess we could blame our mothers . . . . Well, that's what everyone else does . . . it's my mother's fault. Too much food. Ah, fat, high fat foods, milk you know, all the wrong things. Mothers, they didn't know . . . wieners, deli meats, you name it. Pork chops with the fat on the side . . . . So it wasn't really my mother's fault. I mean, she didn't know any better. Her mother fed her that way. (D)

> . . . if we didn't have anything to do at the farm and it was night time and you're done out in the fields or out in the yard working, then you, you'd have some chips or something to pass the time or some popcorn or something like that. (U)

These family of origin factors interfered with taking responsibility for one's weight because they encouraged the perception that one fit with the expected pattern. It was difficult to determine gradual weight gain because excess weight was the norm.

Marital interactions. One factor associated with marriage and the gradual but unperceived gaining of weight was the development of a new system of eating. Since both partners were living the same lifestyle, they both gained weight.

> . . . she had all these gross recipes that her mom had given her. You know, casseroles, sauces . . . . Getting married does it though . . . . I gained some more weight and then, you know, [my wife] gained some weight . . . . (D)

Getting married was associated with not having to worry as much initially about one's appearance. There was concomitant weight gain from settling down and developing a new lifestyle.

> . . . somehow [I] didn't feel very sexy and, you know, it's kind of funny. When I got married, for a while, thoughts were going through like, well, you don't really have to feel that way any more. (D)

Other factors associated with marriage and gradual but unperceived weight gain were the lack of portion control in the preparation and service of food, the meaning of food preparation for one subject's spouse, and the preparation of richer food. Portions were frequently determined by visual appearance or habit rather than by the nutritional requirements of the family members.

> She cannot cook for two people. She never cooks for two people, ever. You know, she can't do it. She's always cooked at home for seven, and I think [she'll] always cook for seven at home. (J)

One subject felt his wife gained recognition and esteem from the quality and quantity of food she prepared. It was as if she saw the results of her labour in the girth of the family members she cooked for. This factor placed the participant in a double bind situation--either gain weight or risk lowering his wife's self-esteem.

> Let's say she goes away for a few days. She really worries what I'm gonna eat. And I say, "Well, I'll eat. Don't worry about it." "Well, what are you gonna make yourself?" You know, "I don't know. I'll make myself something. Don't worry about it" . . . . She said, "Don't worry, I'll fatten him up," and I think that she likes that little pot, 'cause she feels that she's taking good care of me. (J)

As well, two subjects commented that either they or their spouses preferred rich cuisines. This factor was significant in their inability to perceive gradual weight gain because the focus was on the enjoyment of rich foodstuffs on a regular basis rather than on limited occasions.

> She cooks French Cuisine. You know, fancy sauces, desserts, and [it] has got to be [that] when you go to the table, you can't just eat and leave. It's got to be mmm, wooo. You know what I mean? (J)

The subjects who were either single or divorced commented on the relationship between their marital status and the quality of their eating habits. These subjects discussed how they relied on restaurants for food rather than cooking it themselves.

> I was divorced about eight years ago. My divorce and my weight gain coincide, because I left a situation where I was in a home situation eating at home, sort of living a lifestyle at home, to a situation where I was by myself, single . . . . I was eating the hamburgers and I was eating the fried foods. I was just eating restaurant food. (K)

Two subjects talked about their patterns of addiction to sweets. In one case it was candy and in the other case it was pop. These patterns blocked the

perception of gradual weight gain because the focus was on satisfying the craving rather on than perceiving the outcome of over-consumption.

> There was a point in my life where I was addicted to pop. I drank, when I was in the bar business, I used to drink between 20 and 30 mugs a night. Beer mugs of coke . . . . (Y)

> Give myself something good, something to give me a lift, take care of myself. That's why I go for the sweets. (E)

Another factor that interfered with becoming aware of weight gain was the gradual or sudden decrease in physical activity. When the decrease was sudden, the person noticed the weight gain; but many of the subjects discussed, how they gradually became more sedentary.

> When I was 28, I noticed that when I hurt my knee and ended up sitting around all summer then I didn't lose that winter weight that I gained. (M)

> It wasn't customary for me to come home from work and watch television. That wasn't something I did, even as a child . . . . I found out I was doing more of that than I was doing anything else. (K)

Eating to reduce personal stress was a method used to distance oneself from negative feelings. The management of stress was handled by increasing snacking to substitute for smoking and watching TV in place of more physical forms of recreation.

> . . . when I quit smoking, instead of having a smoke, you go to the fridge and have a snack, you know, so maybe what I've done instead of putting my habit away from smoking, I just transferred it to eating. (J)

This displacement strategy, however, becomes another detrimental component of one's lifestyle that adds to the existing weight problems.

> So it becomes a vicious cycle. You eat, you chastise yourself, make yourself extremely depressed. Then you go and eat some more so you'll feel better. (Y)

Other personal lifestyle factors cited as reasons involved in not perceiving gradual weight gain were choosing to meet the needs of the family before meeting one's personal needs and social drinking. Priorities were placed on external concerns rather than on personal health needs.

> Playing rugby is a pretty difficult game socially, so that's four nights a week that I could probably put back six beers. That's a lot of calories. (K)

Enhancing Factors to Perceive Gradual Weight Gain

Three factors were cited that assisted individuals in perceiving gradual weight gain. They were social comments regarding their weight gain, healthy habits learned in childhood, and feeling physically heavy.

Social interactions. The social interactions that facilitated perceiving that one was gradually gaining weight were such that they encouraged personal initiative rather than pressuring the individual to change. This difference was perceived by the subjects as they discussed social factors as both helping and hindering perception.

> A couple student nurses were giggling, and I asked them what they were laughing about, and they said, "Oh, you just looked kind of funny the way you're carrying that board on your gut," and that bothered me. (D)

Family of origin. Some of the subjects discussed the good eating patterns they learned from their parents. They suggested that eating and activity patterns learned from one's family of origin were a resource in recognizing and turning weight gain around.

> My dad got us into skiing. He's the one who got us the first set of equipment. He's still out there. He skis once in a while . . . . [Kids] are not being educated properly as far as nutrition is concerned and a

> lot of them come from broken homes or alcoholic parents and the parents never taught them nothing. (M)

Personal. The outcome of gradually gaining weight was that one felt heavy and could no longer ignore the fact that one was gaining weight. This led into the next stage where the subjects interpreted their weight gain as serious and needed to be attended to.

Stage Two: Recognition of the Discrepancy Between Images

Eventually an awareness dawned that the person was at a weight that was higher than he had ever been before in his life. As well, this weight was sometimes higher than his peers' weights and he felt bad for not meeting both personal and societal expectations. The second stage, recognition of the loss of personal control over appearance and well-being, involved moral, emotional, and mental conflicts between what one thought one should be and what one was in reality. A key element in this stage was whether one started with an excessively negative focus or an accurate picture of oneself. It appeared that if there was a transition from a self-depreciating to a more constructive focus, this aided the management of both the inter-personal sources of conflict and ultimately the formulation of a new image of oneself.

> That would be a big change and perhaps, therefore, scary for me to think of myself as physically well proportioned . . . because I see myself through cameras that people see me or in the mirror or sometimes even just from up here . . . . For 25 years I'm used to being teased about being fat. So 25 out of 31 years, it's a change to think of myself as looking good, as not feeling fat . . . (E)

> I was horrified. I got on the scale and I thought I was 180 pounds or something, and here I'm 225 pounds and so I started cutting back on what I was eating and cutting back my beer and cutting back everything and I just fought it until I was down to 205 pounds. (D)

Following recognition they were carrying excess weight, the majority of the subjects avoided confronting the fact that they were overweight.

> You always think you've got lots of time to lose weight, I guess. You're always saying I'm gonna lose it next year. (U)

This strategy of avoidance, however, didn't resolve the feeling of incongruity, and there then was a bifurcation at the next point along the process: half of the subjects decided to work at reconciling conflict and the other half looked for an easy way out.

> I started to see a different doctor here in the city, and he suggested that if I wanted to lose weight that . . . I had to make some radical changes in the way I ate. (D)

> But see, you always try to find an easy way, you know. (J)

Finding sufficient reasons to lose weight was the transition marker that led the participant from Stage Two into either Stage Three or Four. The difference between which stage was entered next depended on whether one chose to fit with social values or personal values.

> I'd look at myself in the mirror and I'd say, "God, how did you do this to yourself?". . . What I couldn't accept was all this extra fat I had all over my body . . . . Visually, how I saw myself and what I thought I looked like were two different things. I was having a hell of a time, rectifying that. . . . reconciling what I was looking at and what I was looking at. (K)

> There's a girl that I like and I was just thinking about her . . . . I thought, "Well, you know maybe if I, like I can, I can lose weight, it'd be more of a benefit." (U)

Detracting and Enhancing Factors in Stage Two

Recognizing that one has gone over an acceptable weight limit meant that the person realized he had gone over a socially accepted weight range and he was also

over the weight that he felt comfortable with or perceived he should be at. All but two subjects defined themselves as having a poor physical image, and these two persons felt they were not as bad as many others were. Figure 3 illustrates the factors involved in recognizing that one has violated acceptable weight standards.

Detracting Factors to Deciding to Confront Excess Weight

Recognition that one had surpassed socially accepted weight limits was heralded by social comments about one's weight. These comments ranged from social harassment to more intimate remarks.

Social norms. One subject specifically discussed the attitude that excess weight was perceived by the majority of individuals in society as the inability to restrain intake. This inability for self-restraint meant that he was not entitled to the same degree of attention and treatment for other conditions either related or not related to poor lifestyle practices.

> I went to Alberta Health Care. They said, "Oh no! We don't pay that. You kidding?". . . A friend of mine went to Nutri System and had the free consultation. Well, he said he came out of there with a feeling that their only concern was to get him to sign the contract and give them $700.00. Well, to me, if you find out you have cancer, they don't care whether you could pay or not, they're going to treat you and try to make you better. (Y)

This message of the inability to control oneself was internalized by most of the subjects.

> Well you know, most of the time when you think about a fat person, the first thing you start to say, "Come on. Where's your self-control, for crying out loud? You're lazy," or you know, "Come on, get with it." (J)

Consequently, this expectation of limited self-control encouraged the exploitation of those struggling with excess weight by commercial business people. Others were annoyed with these techniques.

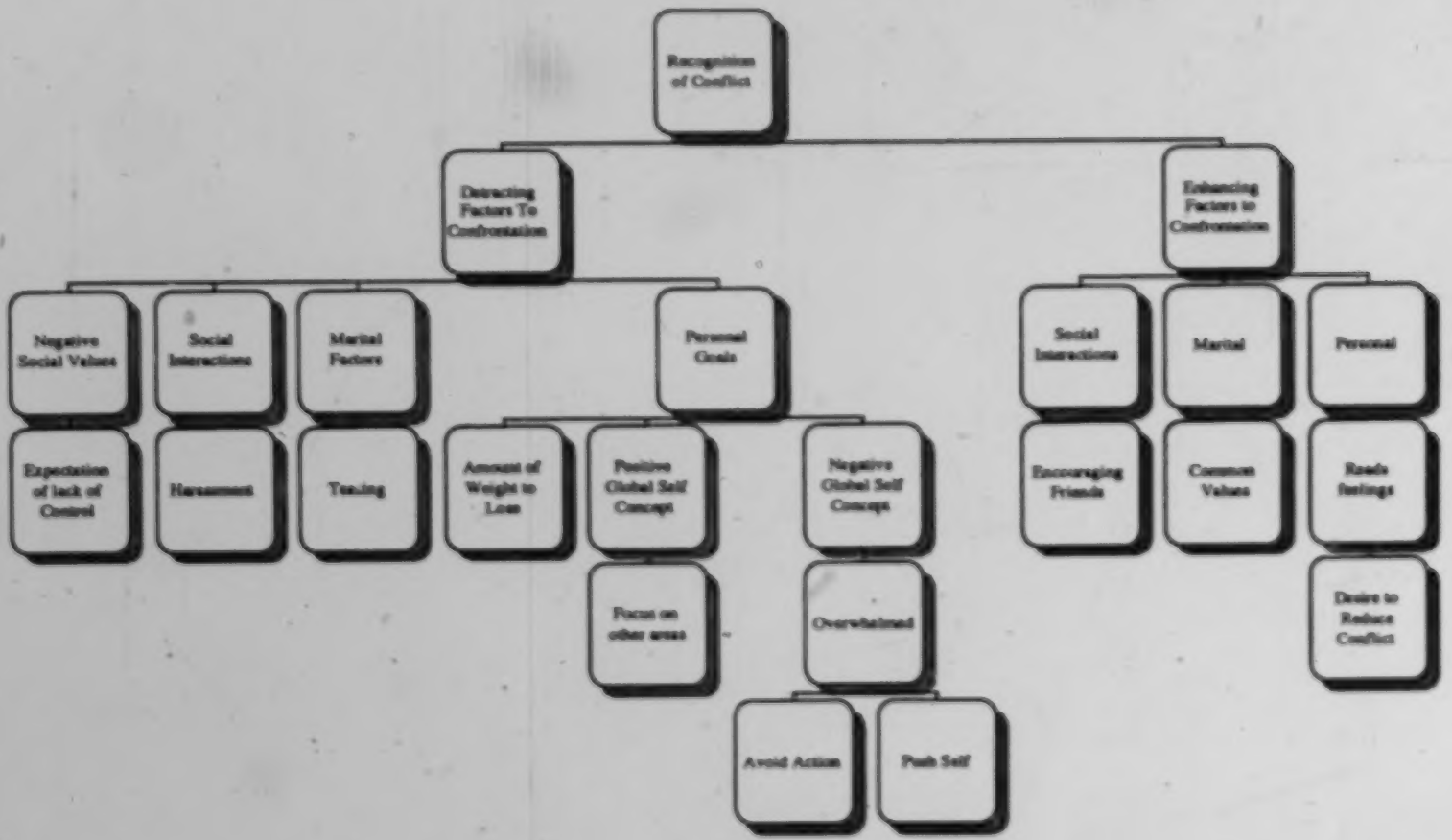

Figure 3: Stage Two: Recognition of Conflict

> I see some [of] these ads in the paper where they have a shadowy ghost picture of some woman who is 850 pounds and you see this nice clear snapshot of someone who is 105 pounds. Right, that's the same girl. I think they prey a lot on people's gullibility. (K)

Social interactions. All of the subjects received comments from friends and acquaintances about their excess weight once it had reached a certain point. One was the butt of direct harassment, indirect harassment, or avoidance by others.

> When I was working . . . you get a nickname. My nickname is "fridge." I don't mind that . . . . When someone makes a joke that you thought was funny the first time around but takes it one step beyond funny to cruel almost and over does it and over does it, it's just a little too much. And there are some people like that. (U)

> I'm sure you've heard people say something when you thought they weren't listening. Well, same thing . . . "Look at the fat guy" or "Gee, isn't he fat?" (Y)

These social comments were perceived more as put-downs than agents that encouraged the person to rise up and do something about his condition. The individuals needed to hear that they were capable of changing.

> They may be giving you a jab because they're making themselves feel better about it by putting you down, or they may be giving you a shot because they look so much better than you do. (K)

Marital interactions. The recognition that one had surpassed socially acceptable weight limits was experienced in one's intimate relationships with one's partner. Three subjects discussed the role excess weight played in reducing the quality of their sexual relations. For half of the married subjects, one's spouse's weight was also a problem, so there was an emphasis on the partner's weight rather than on their own weight.

> She usually just teases me once in a while and grabs a roll. You know, gives it a tug and I'll look at her, and then she'll know I'm thinking the same thing about her, so then she just drops the whole subject. (M)

However in two cases the males' weights were proportionally greater than their wives' weights. This awareness was handled by either deflection of any effects of excess weight or internalization of blame for the quality of the relationship.

> . . . my weight has never been an issue as far as she and I are concerned . . . . She was extremely happy when I lost the weight, but . . . she didn't love me any less when I put it back on. (Y)

> I was getting really [angry] at the whole thing, and I wanted to get rid of the weight, you know, maybe hoping that could do something. (E)

Personal factors. Three subjects had a positive self-concept in spite of realizing that they were overweight. Two of these subjects denied the severity of their weight problem.

> I don't think I have such a severe weight problem as some guys I know. (M)

One subject decided to enjoy life without being continually burdened about his weight. This strategy was linked to not having problems with one's weight socially.

> Yeah, that's when I knew that my physical body was just no good--that, well, it was just too big. Ha, people were gonna harass me about it so. I felt bad about my physical self at that point and after I became more independent . . . once I had a car and everything I didn't, didn't really care any more. I could do what I wanted to do. I just didn't let it bother me . . . I wasn't really unlucky with women even when I was overweight. (D)

A realistic self-concept eventually led toward confronting one's excess weight when it became bothersome enough and when effective means were available to accomplish the task of weight control.

A negative self-concept was experienced by the majority of the subjects as they had a feeling that a personal character defect was the reason they were

overweight. There was also a feeling that one was incapable of changing one's conduct and one's appearance.

> . . . but you know deep down something has to change, that something is not right. And that's what I felt. I felt that I was doing something that was keeping me overweight. And I never really thought much that there was much I could do about it. I figured that it was just my genes or whatever. (D)

> On a scale from 1 to 10, I felt like I was a 1, so I didn't even make any approaches to women in any sort of a social sense because I didn't want to be turned down. (K)

Unfortunately, when most of the individuals looked at the amount of weight they had gained, there was often a sense of being overwhelmed with the amount of work that was required to turn it around.

> Yeah, I guess it was more of . . . it was going to take too much effort. I wasn't really happy with the way I was, but at that point in time I wasn't prepared to put the effort into changing it. You know it was just easier to let it slide . . . . So I just sort of resigned myself to the fact . . . . I just left it alone and didn't, couldn't, face it . . . . (K)

Avoidance of action was one strategy used to manage the recognition of the discrepancy between actual appearance and the desired image the person had of himself. Avoidance strategies involved hiding excess weight with clothes or excelling in other areas of life.

Many of the subjects discussed how they tried to reduce the visibility of their excess weight by hiding fat with clothes. However, this wasn't the case for all of the subjects, as some chose to ignore the way they looked.

> I didn't take my shirt off unless I really had to, and I was wearing vests and sweaters all the time, simply because when you've got a sweater on, who could tell. (K)

> I never used to try to make my exterior, my dress, what I'm wearing, look good because I didn't feel that I looked good anyway, so actually when I think back, I think I was kind of frumpy looking. You know,

> my clothes were not me really--they were sort of half between a grocery store packer and salesman. (D)

One subject in particular discussed how he tried to push himself to excel in other areas of his life to compensate for being overweight. This strategy was used when he exceeded the category of being overweight.

> I think that people who are obese they have a little tougher row to hoe, because the opinions that are formed are more often than not, not favourable. You gotta go the extra mile. You know, like I say, getting back to my job. I sometimes wonder if that's not why I strive, strive a little harder to do a little better because that's part of the extra mile. I don't know. I don't know if it is or not. Like I said, it's just one of the questions I've asked myself. (Y)

Enhancing Factors in Recognizing Discrepancies with One's Physical Image

Factors that were involved in the recognition that one's actual appearance did not match one's desired image included encouragement to lose weight from friends, the fact that one's spouse's weight was increasing as well, and either a reduction in one's health status or energy levels. For the most part, the subjects began to identify costs associated with their physical image and they wanted to reduce them.

Social interactions. One subject commented about being able to discuss with a friend the fact that he was unhappy with his weight. The opportunity of being able to discuss options and feelings was perceived as being helpful.

> I talked to her about clothes and things . . . . Well if we're talking about it, it was like yeah, if I brought it up it was like, "Yeah, I might try and lose some weight." It was like, "Oh yeah, well okay, I heard of this program and you might like to try it." It wasn't like "Oh yeah, you should. Geez look at ya" . . . . She said, "Well, I heard a great deal about this weight program. Why don't you try it?". . . So really I owe a lot of it to her for giving me the little push that I needed to think about it. (U)

Marital factors. The awareness that one's spouse was gaining weight helped some individuals recognize their own weight gain. Since they did not particularly

want this to happen to either one of them, they decided that it was time they both took action.

> I got married and then I gained some more weight and then you know, [my wife] gained some weight. I thought, you know, "By golly, huh, [she] would sure look better if she lost some weight. Hmm . . . I would probably look a lot better to her if I lost some weight." And so we just started into this thing. (D)

Personal goals. Eventually each of the participants developed a reason to embark on weight loss. These goals ranged from playing a better grade of rugby to improving health and fitness to becoming more attractive to the opposite sex.

> I just realize I'm not keeping myself in a good condition as I could, and I know arthritis is going to start to set in really bad if I don't keep it up. (M)

The recognition that one had stepped beyond acceptable limits for weight led to the recognition that one's image of oneself was in conflict with one's personal values. Conflict between one's physical state and one's desired physical image triggered the subjects to enter the next stage to reduce this conflict.

Stage Three: Seeking to Meet External Standards

After the problem was recognized, those that chose to by-pass the reconciliation of their actual and their desired images in order to form a new image entered Stage Three and were guided by the expectation that they could succeed at losing weight without changing their lifestyles. The individuals who lost weight and then regained it operated from either a very negative view of themselves or a positive view of themselves. Those who had a negative self-image perceived they had no self-discipline. The individual with a positive self-image didn't perceive the excess weight to be the result of his actions. Key elements in deciding to externalize

the solution to the problem were the acceptance of diets as the solution, a spouse being on fad diets, and a lack of confidence.

All of the participants except one entered the diet cycle. Starting to diet was initiated by the availability of a diet that looked promising or having one's life in some sort of order so one could exert self-control.

> Anything that came up, "Hey let's do this one." And somebody says, "Hey, we tried this. We lost so much weight," you know. "Okay, let's do it." (J)

> . . . when I start feeling good I expect more of myself. That's when I get going . . . . I decide to lose weight. (E)

The key components of the diet cycle were trying, quitting, slipping, restarting and then continuing to go around and around in this cycle. Dieting was selected because the subjects for the most part felt that external control was necessary for weight loss. A rigid, no-nonsense approach was often adopted with dieting. Several of the subjects entered clinical diet programs.

> I found the program extremely easy because there are no choices to make. That's number one. Number two, the results are immediate. It doesn't take any genius to figure out that if you go from whatever you're eating to 400 calories a day you're going to see results, and you're going to see them fast. And that was the thing. That was the big attraction for me--that I was going to see results fast. (Y)

Two other strategies were used in conjunction with dieting during the externalizing stage. They were developing some sort of method to see results and competing with others involved in losing weight. Two subjects used graphs, two subjects used performance records, and two subjects discussed how they set up competitions for weight loss with their spouses to maintain the momentum for weight loss.

> I wanted to give myself some positive feedback for losing weight, something I could see graphically. (E)

> . . . at one point in the program, I was going for the record and that was the big thing. "[He's] going for the record. The most weight loss in 16 weeks." (Y)

> Well, you go weigh in and me and the wife, we had a kind of thing you know. She'd get mad at me because I could lose faster than her. Made me feel good in a way. But then I felt bad for her, too. (J)

The use of external markers for weight loss did not always assist one in keeping the weight off. One either didn't see sufficient progress on the graph or once the record was reached there was no longer anything to strive toward. Similarly, competition with one's spouse had drawbacks because the person felt bad for winning and for losing.

Quitting diets or exercise regimes had to do with not seeing the results one had anticipated. The key element in this stage was feeling as if one was getting nowhere in spite of making the effort.

> And hey, I even tried the method that I joined the gym, you know, and I went and just sweat my buns off every day. You know, I was in pain with a capital P. And even when I was, you know, after a couple of months and I was in good shape I gained weight. I didn't lose a pound, by God, but I still had all that fat on me, you know. (D)

After one got started on the weight loss track, there was a striving for the completion of the process so that one could get on with one's regular life.

> I felt good, looked good. Then we got our Gold Keys, our lifetime membership, and you seem to think well, hey, I'm all right now, and you start a little bit here and a little bit there and first thing you know, you're back to where you were. (J)

Externalizing gave way to slipping for most persons. The maintenance of achieved outcomes were not matched by reality. Slipping was defined by one subject as disregarding the new and healthier changes made in his lifestyle. Slipping was gradual, as it started with the decision that everything was okay and then progressed

from regaining a few pounds to partial weight gain and eventually (for some of the participants) to the regaining of all previous weight lost.

> Slipping is when you start to disregard your change in lifestyle. Slipping is when you stop drinking your freshly squeezed juice in the morning and start thinking about that boiled egg might be good. Slipping is when you decide that you're not going to have a salad with your steak, you're gonna have a couple chunks of garlic bread. (D)

Slipping had its physical and psychological costs. The physical costs were that each time the person tried to lose weight it was more difficult to get motivated, the weight loss was slower, and dieting affected metabolism if it was the only method used.

> You know, you seem to lose, let's say five pounds, but then you gain. That's when you gain back about seven . . . and it seems to throw your metabolism out of whack. (J)

The psychological costs of slipping included a reduction in one's level of confidence, in one's ability to control oneself, and one's ability to master tasks. A key element in slipping was the inability to reconcile a controlled approach with one's internal needs, and the sense of incongruity deepened. The outcome of this stage was a greater sense of self-deprecation.

> I can't really blame anyone else. It's really, well, probably my, well most likely, well, really it is my fault. Nobody else is pushing it on me out there. (J)

> I think one of the things for me is that I'm not particularly proud that I put 60 pounds back on and that's still one of the things that I have to deal with. (Y)

The latter stages of the diet cycle consisted of entering more controlled programs. This was not an effective strategy, as the three participants that chose this route regained weight.

> I can't do it on my own so I admit defeat, go to Weight Watchers, to lose all my weight. (J)

The outcome of repeated or major slippage was a vacillation between trying to protect one's self-image and concomitantly trying to figure out what it was that one was doing wrong. Although settling for a higher weight was an option selected by one individual, it was not a long-term option as the individual assumed responsibility for relapse and decided to wait until he had found a better method.

> Right now I'm tired of defeat. I don't wanna fail any more. I failed enough. So if I'm gonna fail, then I'm not gonna do anything for a while and see what happens. (J)

The strategies used to protect self-image were as follows: trying to blame someone or something, trying to settle for a higher weight, and trying to convince oneself that one didn't really give it all one had to give. These strategies were used when one really couldn't pin-point the problem with his weight.

> Maybe those companies that make food, they don't have no qualms about putting in something that would make you addicted to it. Oh, not addicted, but make you crave it. Just like at one time Coca Cola wanted to put cocaine in their Coke, and it was seriously discussed to make it addictive so that people would drink it more. So big companies like that can do that. What's wrong with the little companies, you know. But then see, I'm looking for a reason to blame somebody else again instead of blaming myself. (J)

Since one lost both social status and self-esteem for not being able to maintain one's weight, professional resources were either considered to be a way to solve the problem or actively sought. Counseling was considered by two individuals to assist them in defining the problem as a perception problem rather than a character flaw.

> . . . it's obvious I was doing something wrong to start with. So therefore I don't really know what's good for me . . . . I mean am gonna be fat? You know, is that all there is? There's gotta be a

> solution some place, you'd think. That's why I'm thinking of going to a, like a counsellor, get some special counseling. (J)
>
> I've learned that one of the things through the program is that obesity is a disease . . . . The doctor that I go to and the psychologist that I am now going to want to treat it as such, because I don't eat because I'm hungry. (Y)

The transition from identifying the problem to focusing on transforming one's image signaled the end of Stage Three and the beginning of Stage Four.

Detracting and Enhancing Factors in Stage Three

Choosing to resolve the external conflict for not meeting social expectations was selected by three individuals because it was considered to be the easiest way out. The focus was on weight loss, because with rapid weight loss one's appearance and conformity to social values would be congruent in a short time. Figure 4 illustrates the enhancing and diminishing factors involved in seeking to meet external standards.

Detracting Factors from Assuming Responsibility

Detracting factors in choosing to meet personal expectations and enhancing factors in the selection of external standards included the following: the acceptance of social norms regarding methods of weight loss, joining one's spouse on fad diets, and a perceived lack of personal control. These factors led to entering the diet cycle, slipping, and then managing the consequences of slippage.

Social norms. Three social conditions were cited that influenced the individual to choose to meet external standards. These factors included social expectations for rapid weight loss, the reliance on specialists to assist the individual in solving health problems, and the availability of fad diets.

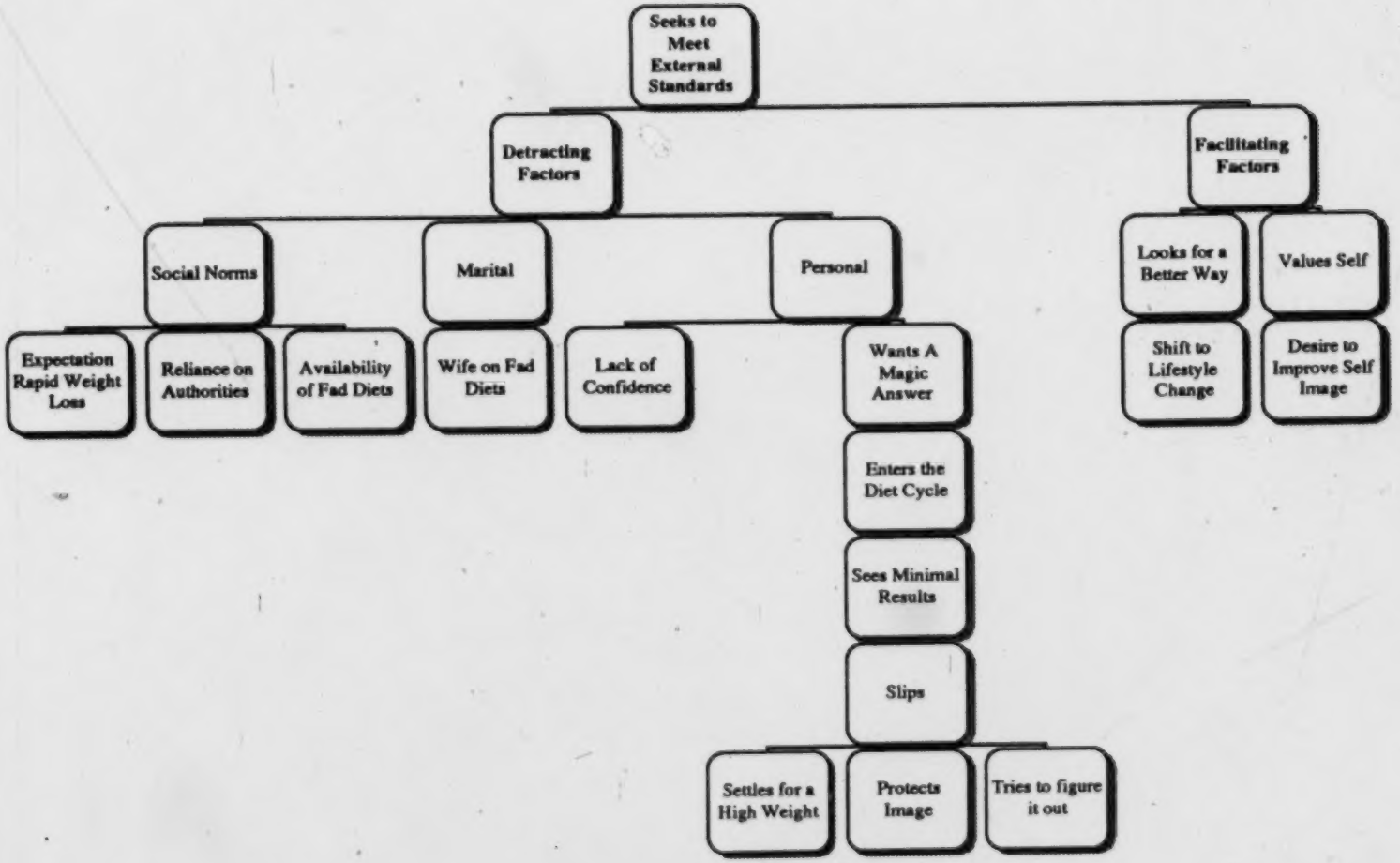

Figure 4: Stage Three: Seeking to Meet External Standards

Many of the subjects who entered the diet cycle either expected or wanted weight loss to be rapid, easy, and permanent. This expectation interfered with the realization that changes in lifestyle were required.

> We all want a quick fix, an easy fix. You know, like, how many people are on drugs and you got a little headache, pop a pill, fixes it, you know. (J)

Some individuals relied on authorities to make specific recommendations. Those who received global suggestions took no action because they did not know where to start.

> But you go see the doctor and he says, "Well your cholesterol is way too high . . . ." So what are the right foods? . . . So you get books and you get this and the sea of information you get and stuff that you're supposed to do is just overwhelming. (J)

The availability of fad diets also encouraged individuals to use them instead of setting self-determined standards and working to change their lifestyle. However, after repeated relapse, some of the individuals realized there were too many costs in selecting the diet route.

Marital interactions. In addition to social conditions influencing the individual to look outside of himself for guidance, many of the subjects' spouses were on commercial weight loss programs. This condition either triggered the individual to adopt his spouse's strategy or created conflict for other couples.

> Well, she was going to join because she was, you know, getting overweight and she's very proud, you know. She likes to wear nice clothes and stuff like that, and she's short and so she was up to 144 pounds and she wanted to lose 20 pounds. And me, well, my doctor told me either I cut down on cholesterol and lose at least 20 pounds or you are going to be in a lot of trouble, so you start thinking about that. (J)

> I know she talks about girls at work who are on Nutri System and for 500 bucks I can't see why it would be impossible to do it on your own. I don't see $500 being worth it. (M)

Personal factors. Personal factors involved in externalizing the solution to the problem included a lack of confidence, wanting a magic answer, and seeing minimal results with self-initiated efforts. Personal control was perceived to be a problem in maintaining a restricted intake and continuing with exercise plans.

> I found I couldn't control it if I was allowing myself to eat sweets. I found it very difficult to control how much of the sweets I ate, so I just thought I have to eliminate all the sweets and then I noticed that I was pigging out. (E)

> One of the other things was I've always been a person who, like, if walking was the exercise I was going to do, if I walked, it was religiously, and if I missed a day, that was the beginning of the end . . . if I missed a day, I'd find a reason to miss 2 days from now. And pretty soon I wasn't doing anything . . . . When you've got . . . upwards of 100 pounds to lose, then it's not so much a trick, like it's not so easy to lose the weight because of the fact that the haul becomes much longer . . . . (Y)

Following the diet cycle involved seeing minimal results and then trying different diets or losing weight, abandoning the diet, regaining weight, and then starting over again. Relapse had a major impact on the confidence levels of the participants. Only by seeing major amounts of weight loss through lifestyle changes did some of the individuals see a way out of the vicious circle.

Enhancing Factors in Assuming Responsibility

Three personal factors were found that enhanced the decision to meet personal expectations rather than external expectations. These factors were an adequate degree of self-worth, a desire to change for one's self, and confidence that one could transform one's image.

> I realized there's a problem. I've always been confident. I've always had high self-esteem, you know. It's one, maybe one of the reasons in

> here I just didn't do anything because as a teenager, I always had pretty good self-esteem . . . . Like I always wanted to lose weight for myself, but I didn't wanna lose weight so I'd look like someone else or so I could be different. I think it's just realizing that you are who you are and that you can change things a little bit, you can make yourself look thinner or look a little more muscled or whatever, but you're still who you are. (D)

Self-confidence had a major impact on whether individuals decided that lifestyle changes were needed for weight control. Berating oneself decreased this confidence, whereas confidence that changes could be made carried one on to the next stage.

Stage Four: Formulating a Self-Defined Realistic Desired Physical Image

Stage Four, the re-definition stage, consisted of four parts. It began with coming to terms with the reality of one's excessive weight, accepting oneself in spite of one's shortcomings, wanting to improve one's appearance and expecting oneself to succeed at this goal, and assuming responsibility for doing that which was best for oneself.

> I think it's an attitude. It wasn't just losing the weight; I was changing the way I was living or the way I was working . . . . But I really think it's the way you approach it, I think you gotta make an attitude adjustment . . . . Well, just forgiving yourself or just for accepting yourself for the way you are. I'm never going to be Arnold Schwarzeneggar, nor do I want to be Arnold Schwarzeneggar. Just being happy being myself, and then doing as well as you can for yourself . . . . You have to be what you want to be. (K)

Expecting oneself to succeed was also encouraged by having an adequate amount of self-esteem.

> I've always had a pretty good self-esteem. Ah, so, perhaps, overall it is better, I mean I'm sort of looking at my self-esteem in different, sorta, segments, ay. I got self-esteem in my social life and my work life, different levels . . . . Now my body, well it moves the same way,

> up and down . . . And, the greater self-esteem is, again, I have, to say is mostly to do with my physical being. (D)

Different strategies were employed by the individuals to envision transforming their physical image. The participants who were not overweight as adolescents could visualize the image they had when they were younger. However, in the case of participants who were not thin in adolescence, the strategy of verbal affirmations were used to change their image of themselves.

> Yeah, when I was about 32, 30, in that range, and that's probably the best shape I was ever in, 28 to 30 range, and, yeah I remember what I looked like, what my waist size was. I knew that if I could get my waist size down to 32 or 33 that, that was going to make a lot of difference in the clothes that I chose. (K)

> I just did that simply by, you know, going into a self-hypnosis relaxation and telling myself you may become thinner . . . . . You are a thin person somehow trapped in this fat body . . . . To this day, I still practice this same technique. I say "thinner" . . . . I'll close my eyes and say the word "thinner," and I'll just picture the word across the screen of my mind. (D)

When the person could visualize a picture of becoming thinner, then the next step was to make the achievement of this image a priority. Making weight control a priority involved reading one's strengths accurately; determining that one had the intelligence, the perseverance, and the discipline necessary to achieve this desired image; and then working out a plan to achieve and maintain the desired image.

> I've always sort of felt that I could control a situation if I got into something. I always felt that I was intelligent enough or that I had enough wherewithal that I could look after myself in these sorts of situations. (K)

> I just decided to check it one day. Up until then it wasn't a priority. And so, I really got to know myself. I got to know that on a weekend, if I had free access to food, I'd put on five pounds, and I suppose that sort of helped me too, figuring out what worked, because I was weighing myself daily . . . . I don't have a scale at home here, but at work I weigh myself every day and it's a factor because it keeps your weight as a priority item on your one to ten list or whatever. You start

> ignoring your scale, you start ignoring your problem, I think. Weigh yourself every day; it's a good idea. You really learn your body. (D)

The decision to change one's lifestyle marked the entrance into Stage Five. This stage commenced with the decision to consume regular meals, to reduce the caloric density of one's intake, and to increase one's physical activity. One had the desire, the resources, and the stamina and was ready to do something about it at this point.

> I guess it just kinda clicked one day. I said, "It's time to do it." (U)

Detracting and Enhancing Factors in Stage Four

Figure 5 illustrates the factors involved in detracting from or enhancing the formation of a realistic desired physical image. Detractions including social control, unresolved marital factors, and personal cognitive abilities hindered the development of a realistic desired image. Enhancing factors such as empowering support and sufficient self-esteem facilitated the development of this image.

Detracting Factors in Defining a Realistic Physical Image

Detracting factors reduced the individuals' confidence that they could reach and maintain an acceptable weight, lead a healthier lifestyle, and attain the benefits envisioned for doing so. These factors included pressure to change, unresolved marital conflicts, and personal factors. The problem with these factors is that they interfered with developing a self-determined image.

Social control. Social control involved pressure to conform to someone else's standards. Pressure did not work well, because the imposition of external control gave a double message. The message was both an invitation for dependency and yet

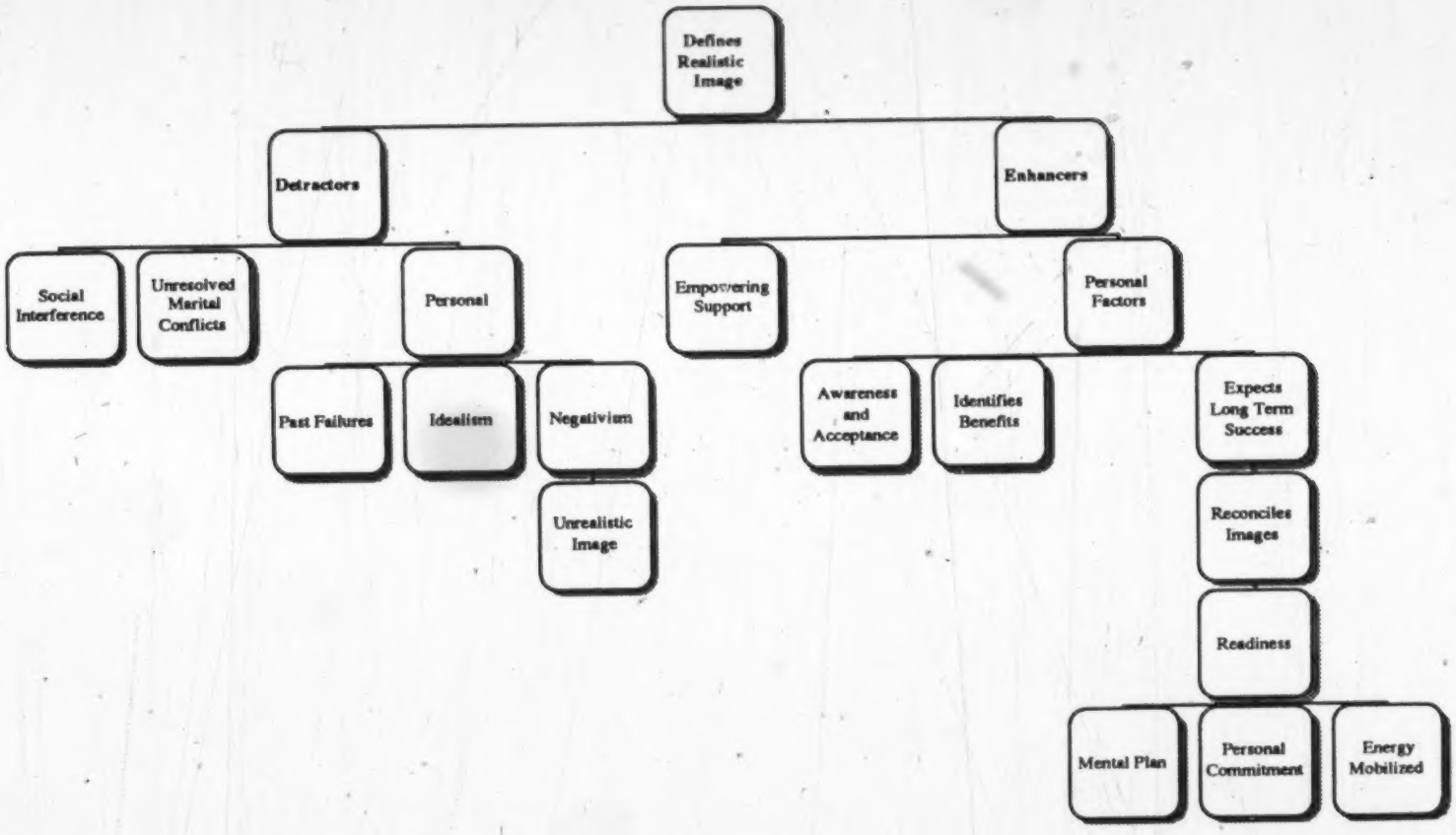

Figure 5: Stage Four: Defining a Realistic Image

encouraged autonomy. This interfered with confidently developing his own image because the person felt responsible for meeting his doctor's specifications rather than defining his own.

> But then you go see the doctor and he says, "Well, your cholesterol is way too high. It's very, very high you know. You've got to do something about it or else you're not going to be a patient of mine for very long." (J)

Unresolved marital conflicts. Unresolved marital conflicts undermined the person's desire to define and work toward a desired image. Furthermore individual goals, when in conflict with marital goals, also reduced the perceived quality of the marital relationship.

> I'm staying trim, and working out lots, but she never did . . . . Well I just, you know, I'd finally blow up. I'd get fed up and tell her it's a waste of my time even trying to keep in shape, even though I'm doing it for myself. Then I got to turn around and look at her. I feel it's something that she has to do on her own, not for me to push it because I've tried and she just doesn't get into it. (M)

Personal factors. Personal factors such as idealism, negativism, and the experience of numerous past relapses reduced the individual's capability to set realistic personal goals.

> Undesirable? I don't know. Defective I guess is the word. Improper, not sufficiently perfect. Not up to snuff, not up to standards. I don't know. The standards of everybody else who looks at me from the outside. Like from here it isn't all that bad; from the camera, it's awful. You know when you look down at yourself. You know when I see myself in the mirror sometimes, I notice it now since that picture. And since some of these other pictures I notice it. I say, "Holy cow, do I look like that?" And that's just about enough to scare me into a diet. I just don't want to look that awful, that different, that defective. (E)

Factors which contributed to the development of an unrealistic image also diminished the individual's motivation, hope, and confidence.

Enhancing Factors to Re-defining a Realistic Desired Physical Image

Enhancing factors were confidence builders. Each of these factors encouraged the individual to set a realistic desired image and facilitated the belief that the person could succeed.

Empowering support. Individuals who either informed others or illustrated by example that excessive weight gain could be turned around through the implementation of major changes and the integration of these changes into one's lifestyle, assisted the individuals in believing that excessive weight is not an outcome of one's genetics and that individuals could take care of their physical selves. Many of the subjects chose strategies from those who were successful, unbeknownst to the model in many cases.

> I saw a person on T.V. on "Head of the Class." There was this kid that was about my size last year, a big hefty kinda guy, and I thought, "If he did well, I can do well too" . . . . So I've been keeping that in the back of my mind, and every time I flick it on and I see that show, that's sort of another little reinforcement: "Hey, he did it, so can I", you know. (U)

Empowering authorities as well encouraged the individuals to set their own goals. This was empowering because it assisted them in believing that they had power and the resources to achieve their goals.

> I discussed it with my doctor. The one thing he is really good at is he didn't set a goal and say, this is where you have to be. But we realistically discussed a goal, not a number goal but an area . . . what would be healthy . . . what would be comfortable, what would, you know, be a good weight for me. (Y)

Marital interactions. Defining and working toward achieving one's desired image was enhanced by one's spouse either having similar values or being able to work out mutual values with the partner. Negotiating new patterns of cooking,

eating, recreating, and socializing were facilitated if the couple had shared values of health, trimness, personal responsibility, effort, and/or balance. Not only did these values help in the definition of a realistic image but when one partner lost the momentum, the other took over.

> You know, I do say "we" because it's so intrical [sic]. It was [my wife] and I together. I don't know if I was single if I could have gone through the same process so many times and gained so much knowledge on this, enough to finally break free of it all. So that was part of it, you know. [My wife] and I are each other's support group, support mechanism. We support each other. (D)

Personal factors. However, social and marital factors were only associated factors involved with the transformation of one's image of oneself. The person really had to want to look and feel better about himself and believe that he could achieve this goal. The changes were not made for his spouse or his doctor or to meet social expectations, they were made for himself.

Self-awareness and self-acceptance involved assessing one's strengths and limitations and defining areas for improvement. Weight loss was perceived as having more benefits associated with it than did maintaining one's state of being overweight.

> I wanted to feel better about myself. Now, when you feel bad about yourself for a long enough time, you're going to want to do something about it. (D)

The definition of a realistic image was associated with having adequate self-esteem and a strong internal motivation. The individual had to come to terms with the image that would satisfactory to him.

> But I don't think you can do it for a partner. I think you have to want to do it for yourself. It has to be you wanting to rectify your image with yourself. (K)

> I just wanna be me. I don't want to have to change to be anybody else. Now I'm changing for a different purpose. I'm changing for myself this time. And [before] everybody bugged me, harped on me to lose weight. (U)

Although readiness appeared to be something that just happened to the individual, the combination of desire, realistic goals, appropriate methods, and confidence seemed to be required before the decision to change was initiated.

> I can't really remember the exact feeling I felt or reason why. It was just like, I guess I'd been thinking about it a long time and finally you just decide to do it. That's what everybody says. They say, "I just decided to do it." That's what I did. (U)

> . . . it's really like my brain put it all together and said, "Here's some information that you've read and that I sort of put together for you while you've been asleep or something, and here try it out." (D)

> I just knew I was going to. It was just a matter of how I was going to take it off. (K)

Individuals began to compare themselves to others, especially in the areas of eating habits and recreational activities. They began to question the validity of their current practices and began to see places where they could make changes.

> It's like when I was over at my friend's place . . . and we finished up. Everybody finished their first servings and they didn't have anything and then they kept saying, "Well, you can go back and have more if you want." I said, "Okay. Well maybe in a bit." And I was tempted to. Then I started thinking, "Well hang on a sec. Why, why do I have to go for seconds when they didn't go for seconds? Why can't I eat just like anybody else that's normal, let's say normal." (U)

> I remember when I was 18 . . . we used to have, compete just to see who could go under the water the furthest, right? And this 52-year-old man, he beat us all by double and I couldn't believe it. And this guy was in shape . . . . But this man, he could run 10 miles a day. He was unbelievable. And it's because of his activities. (M)

Experimentation and gradually adding more physical activity were other strategies that assisted individuals in working out a plan. This strategy involved

trying various alternatives and choosing the ones based on how well they would meet anticipated results and whether they could be integrated into one's lifestyle for the long run.

> Yeah, I just stopped drinking milk for one week and I lost five pounds the first week in November, and I didn't change anything else and I was excited and I said, "Well, I'm going to do something even better next week. I'm going to stop eating bacon and eggs for breakfast." (D)

> I knew that if I went out and hurt myself the first day or the second day or a week down the road, that would stop me, so I just took it really easy and just gradually worked my way up to it. (K)

Realistic methods, when combined with realistic expectations, led to confidence and commitment in seeing oneself achieve the desired goals. These components were necessary to move into the next stage.

Stage Five: Changing One's Lifestyle

Revising one's lifestyle to transform one's image was the fifth stage in the process. For two of the four subjects, it started with pushing themselves into the fray. The third subject fought seasonally as he pushed himself harder and harder each season to turn his weight around, and the fourth subject was more moderate in his approach.

> I went down to 177, 178 in that range. I shed it, because once it started to come, I basically cut out anything that could possibly be regarded as a calorie. (K)

> I always gain maybe 20, 30 lbs. in winter, then try and lose it in the summer . . . I find especially about May . . . . So it's been maybe one or two Winters now that (or Spring) that I've been trying to lose this weight and having a hard time doing it. (M)

The key element in moving from re-defining one's image to changing one's lifestyle was an attitude change towards choosing a healthier lifestyle.

> I think it's an attitude. It wasn't just losing the weight. I was changing the way I was living or the way I was working. (K)

The strategies used to change lifestyle included using resources to develop new eating patterns, redistributing one's intake, seeking new friends, and working in year-round physical activities. Each of these strategies were self-determined.

The development of new eating patterns was accomplished by various means: through the use of commercial weight reduction programs as a jumping-off point, connecting one's reduction in intake with increased physical and mental energy, and drastic reduction measures. The use of these strategies was different than that used in the externalizing stage because in this stage they were perceived to be guidelines rather than rules. Each participant, however, did realize the importance of portion control and used it as a principle governing his food intake. There was no resistance against these guidelines because they fit with one's self-determined expectations.

> They don't really tell you what to eat. They suggest things to eat. You know they don't say, "You have to eat that." It's like, "You should eat this or you should try this or that" and then the onus is on you . . . . They're still collecting their $7 or $8 a week or whatever it is so you know, they want to see you succeed, but they still get your money from you either way. (U)

> I discovered that when I went over to the cafeteria and had a hamburger and chips and gravy at lunch, I felt really tired in the afternoon, so I was just going on how I was feeling. (D)

> I modified my diet drastically. I cut liquor right out of it completely. I cut sugar right out of it, anything that I could possibly, all things that I love. (K)

It was important for all subjects to determine a way of working in some favourite treats. Otherwise deprivation interfered with both the enjoyment of the food item when consumed and the revision of one's lifestyle on a permanent basis.

> Well, I enjoy my alcohol and so I put limits on myself . . . . I say one case a week or its equivalencies and that's one of my luxuries in life. (D)

> I mean I go out for dinner now, it's a special event. It's not something that I do every day. (K)

The development of new friends involved replacing those who disliked the transformation of one's image with new friends who had similar values. The replacement of one's unsupportive social network was only part of the strategy used. When the subjects felt confident that they had mastered weight loss, they began to help their friends who were interested in making the same changes that they had made. Both of these strategies reinforced their new-found sense of mastery.

> I'm making new friends, actually, some new friends now that never really noticed me before. You know, now I'm thinner . . . Well, my best friend has lost about thirty pounds . . . . Yeah, I've given him a few of my tips eh . . . and he lost his whole gut, it's gone. He can wear regular shirts now and . . . he doesn't really admit it but he does feel pretty good about it . . . . I think that that was the best thing for him. (D)

Finally, the establishment of year-round physical activities was required for the final matching of one's actual appearance with one's re-defined image of self. The timing of this strategy differed for the three participants that reached this stage. One individual started altering his weight with exercise right from the start, another worked at exercising seasonally, and the third participant chose to work at exercise once he maintained weight loss and after he had quit smoking. It was interesting to note that all of the participants that made it to this stage were smokers.

> Well, I've been playing rugby during the summer time, but not really doing anything in the winter time . . . I said I can't do this any more, and I started running again. I started to jog (laughs). And I had a little tough time starting because I pretended like I was 30 and I was 40. I got hurt a couple of times. Then I realized, well, look, if you're going to go out and jog, just go out and jog. Don't worry about running so

> much . . . . So I started running again on a regular basis. And I run normally an hour every day. At lunch hour. (K)

> Now I'm just basically finding my own sports. Skiing is one of them. I went out and bought brand new equipment last year. So did she, so we're all set for skiing now. I've still got my mountain bike. I've had it for 5 years now. Didn't ride it once last year, though. And hunting . . . I still go skating, play a lot of scrimmage hockey every year. Got a nice pair of skates a couple of years back. But I haven't joined any teams, especially with this new job coming up. There's no way I'd be able to show up for practices anyway. (M)

The transition to Stage Six was heralded by the choice to retain one's transformed image by maintaining the new lifestyle developed during weight loss with some minor modifications for weight maintenance.

> It's the power to choose your own destiny. It's choice, it's the power of choice. I've chosen now to be thin and I have the power to stay that way. (D)

Detracting and Enhancing Factors in Stage Five

Figure 6 illustrates the components that lead either toward the return to previous habits or toward lifestyle revisions and the achievement of one's desired image. These factors either enhanced or detracted from personal commitment to achieve a revised image.

Detracting Factors to Changing One's Lifestyle

Even though the person had re-defined his self-image, there were obstacles that interfered with the process of working out a lifestyle to achieve this re-defined image. Two social obstacles that hindered the participants' attempts were interference for rapid weight loss and perceived lack of support. These factors interfered with the participants' progress, especially if there were doubts about the methods or partial commitment to develop a new lifestyle.

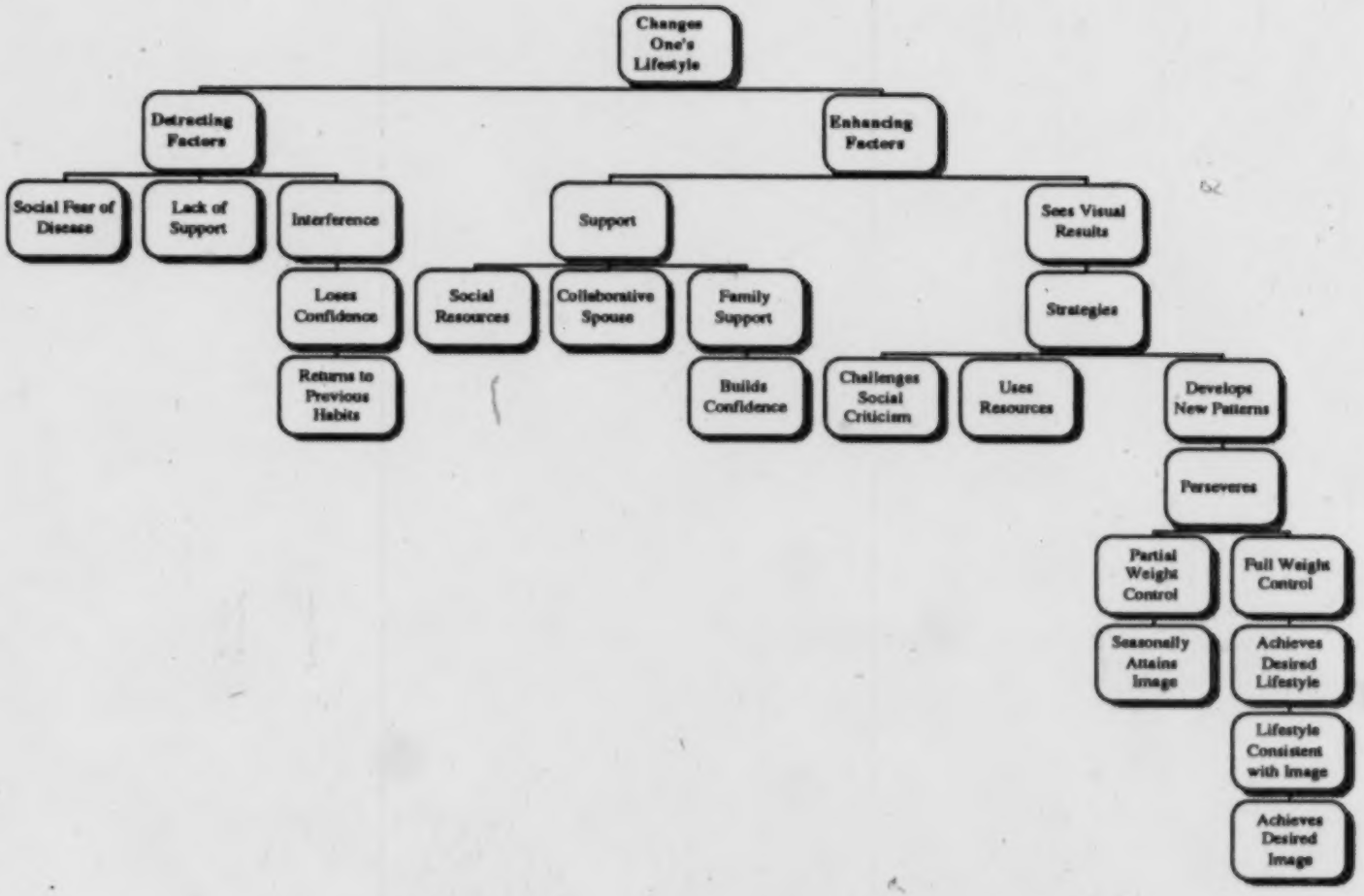

Figure 6: Stage Five: Changing One's Lifestyle

Social interference. Social fear of terminal diseases associated with rapid weight loss triggered an abundance of social harassment and pressure from female work associates for one participant. He was cautioned to slow down weight loss and even to regain some of the weight loss back. This was a surprising finding to both the subject and the researcher, because weight loss was expected to be socially applauded.

> In this day and age everyone is worried about AIDS and like AIDS does have a wasting syndrome. But I mean you're one sick duck when you're wasting . . . . I've never actually . . . told people that like, you know, I get all my blood tests and everything and I'm healthy . . . . After I started losing weight everyone started saying, "Whoa, slow down . . . . You're losing way too much weight you know" . . . and I could just hear the whispers behind my back, "Psssssttttt. He's sick." (D)

It was interesting to note that the comments started after the subject had lost the first twenty pounds and weighed approximately 185 pounds. He attributed these comments to a preconceived image that society has for males to be powerful.

> When I lost my first 20 pounds, I got positive input from the same people that now give me negative input . . . . Then 90% of my input was negative from people . . . . You know, that makes me see that it's really something in the minds of all these people that know me, because people that have never met me before and don't know that I've lost all of this weight think that I [am okay]. (D)

Lack of support. In addition to the social fear of terminal diseases associated with rapid or extensive weight loss, there was a feeling amongst many of the subjects that there wasn't any male support during attempts to transform their image. This interfered with the revision of their lifestyles because there was no one to identify with. Having no one to identify with was an important factor if subjects did not have a picture in their minds of the ways to achieve and maintain their re-defined image.

> I think [with] me being the only male in the group . . . I felt [it was] a little tougher. There was nobody really to identify with, although everyone of course [had] basically the same problems. But for some reason I guess we always feel kinship to another male or in a female's case to another female. (Y)

Even with a moderate amount of weight loss, one individual experienced no recognition from other males for it. This just reinforced his perception that males cared more about substance than appearance.

> I lost 28 pounds. When I went to work, [a client] said, "You're getting fat, you know." "What do you mean, I'm getting fat? I just lost 28 pounds." "Oh." I don't think they notice it much, but you know some of the men's wives come in and they notice it right away. (J)

There was an exception to feeling limited male support during weight loss and that was if the participant could find some other reason to attend a weight loss program in addition to learning new habits. In this case, the participant accepted support from both females and males.

Marital interactions. Intermittent spousal support interfered with the continuation of working at changing one's lifestyle until one's appearance and image matched. Conflicts were found in the choice of physical activities, the degree of energy output, differences in self-management skills, and differences in food likes and dislikes.

> There are times where, you know, she's left behind. She's starting to realize she'd better come along or she's going to be left behind . . . . But usually her activities aren't physical. (M)

Personal. The return to comfortable patterns was a potential outcome if personal benefits for weight loss were not identified. If social harassment was not countered by strong personal convictions for change, the individual was at risk for slippage.

> If people, you know, every day are asking if you're well or not, it can work around you psychologically . . . . If you haven't gained any self-esteem in the weight that you've lost, once the name calling starts up again you'll go right back to here [slipping]. (D)

Enhancing Factors to Changing One's Lifestyle

Various social factors facilitated the person working to reach his re-defined self-image by changing his lifestyle. These factors included the visibility of organized athletic events, seeing others succeed with weight loss, and recognition from friends. They contributed to the mastery of weight loss because they reinforced the perception that permanent lifestyle changes were required to achieve one's goals.

Socially, extremes of physical training are applauded and envied. Examples of applause and envy occurred for the stamina required to participate in the special Olympics and triathlons. The message that hard work was crucial to achieving one's goals filtered down to the participants.

> . . . people who train for triathlons. That's an incredible amount of endurance. It's not just the physical, it's the mental endurance . . . . I go out and run for an hour and I think I'm doing really well, you know, to go out for an hour. These guys are going for eight or nine hours at a time. It becomes a mind over matter sort of thing. And that's what I mean. Everybody has the ability to be whoever they want to, and I know that's a generalization. I think everybody has the potential to be whoever they want to be. (K)

Social support. One subject discussed how necessary it was for him to receive recognition, particularly from males, for his efforts in losing and maintaining weight loss.

> The only thing that kept me going was this . . . . Positive feedback from people which gave me the greater self-esteem which led me to try harder and harder to maintain that weight loss. (D)

Having thin friends, receiving encouragement from these thin friends, and seeing others succeed with weight loss gave the person a push toward mastering his

own weight loss. The messages received from friends were crucial in turning around the focus from one's shortcomings to one's strengths.

> . . . a lot of failed attempts and a lot of people saying, "Well, if you'd only stick to it you can do it" and you see results in somebody else and you know it can be done. It's not just a fake idea. It does happen. You can make a change if you really want to . . . . One of the ladies that I work with said, "You know all it takes is one call and you can join Weight Watchers." So I thought, "Well, I might as well give it a shot" and then sorta brushed aside and I forgot about it. She bugged me again about it and I thought, "Well, if it works for other people why can I not try it?" So I went. (U)

Marital interactions. Spousal commitment to making changes in activity and eating patterns was crucial. The commitment needed to be on-going.

> [My wife] had this will-power to keep it up, you know, especially with the supper part of it. I could have slipped on supper, but she supported me on that, making sure you know that I had the vegetables and not the breads, so we supported [each other]. (D)

Personal factors. Seeing visible results was paramount in changing lifestyle. The subject who received no social interference regarding the rate of weight loss knew that rapid weight loss was not healthy, but he wanted to lose it and get it over with. As long as social expectations regarding rapid weight loss were unspoken, they did not block one's zeal to lose weight fast. In fact, the lack of interference was a major component in sustaining one's momentum.

> I lost the weight fairly quickly. Rather rapidly . . . February to June . . . I went down to 177, 178 in that range. I virtually starved myself. I mean the doctor would never allow me to do what I was doing to myself. I basically lived on fruit and vegetables. Once I started losing it, I lost so quickly that I couldn't believe it. I literally had pants that were hanging on me. (K)

Challenging social criticism was necessary to reinforce the fact that the commitment was made for the benefit of oneself and not for others.

> Now that I put eight pounds on, I'm bound and determined to take it off again because now I've realized that I really don't care. They're

> just full of it. They've got their own problems to [worry about rather than] be bugging me. (D)

Perseverance was necessary to change one's lifestyle sufficiently to meet the desired image one was striving for. Stamina was influenced by the strength of the commitment.

> I've always sort of felt that I could control a situation if I got into something. I always felt that I was intelligent enough or that I had enough wherewithal that I could look after myself in these sort of situations. I've never had a problem at work in that sort of situation that I couldn't handle. (K)

Partial changes occurred when the commitment for weight control was seasonal or interrupted by other changes in routine. The increased difficulties in losing weight each spring led to the recognition that more extensive lifestyle revisions were needed.

> I always gain maybe 20, 30 lbs. in winter then try and lose it in the spring . . . . So it's been maybe one or two springs now that I've been trying to lose this weight and having a hard time doing it. (M)

Those who achieved their desired image experienced a boost in their perceived level of personal mastery. They went on to the next stage which involved maintaining the balance between one's lifestyle and one's desired image.

Stage Six: Balancing One's Lifestyle and One's Revised Image

Balancing was determined to be a process of sustaining the transformation given varying social, family, and personal conditions. The strategies used to balance one's lifestyle with one's revised image included monitoring one's weight, negotiating a balance between relaxation and control, correcting small amounts of weight gain, and reinforcing the image of oneself as a weight loss maintainer.

Both of the subjects who maintained weight loss on a year-round basis weighed themselves daily. This strategy was deemed to be essential in balancing so that small amounts of weight gain could be detected and turned around before weight got out of hand.

> I weigh myself every day. When I work out, that's the last thing I do after I work out is to weigh myself. So it's a very conscious thing. I can tell if I'm a half a pound heavier or a pound lighter. (K)

Negotiation skills involved setting a weight range, choosing to work out a balance between relaxation and restraint during weekends and special celebrations and then cracking down during the week, and finding a way to work in favourites but at the same time maintain weight loss.

> I can tell at Christmas time, because I do relax a bit. I can put on a two or three pounds over Christmas, simply because for that week you won't change your eating habits in fact they get worse, and your activity level has probably dropped and I'll stick two or three pounds on over Christmas . . . . I get right back at it as soon as I get back . . . . I will just say, "That's it. I will cut out for those two weeks or a week and I'll do a little more running." (K)

As well as balancing the number of treats that one consumed with one's weight, there was also a balancing that occurred between one's activity level and one's intake. Balancing was based on the increased sense of well-being as well as on objective weight levels.

> You know the old saying, "A sound mind and a sound body." I operate better myself personally if I'm physically active. I operate better the days I run. When I don't run at lunch hour, my afternoons are longer than if I take that 30 minutes and go for a run. (K)

> . . . you have to maintain a balance between how much you eat and how much you do . . . because let's say I broke ah, a leg right now or both legs and I was stuck in bed. If I kept eating the same amount I am, I would start gaining weight so I would have to cut down on what I'm eating. (D)

Self-management skills involved monitoring, correcting, and fine-tuning. The two subjects who maintained their weight loss monitored their weight on a scale at work or in the gym. This was an important strategy to determine changes in weight that were not attributed to daily fluctuations. Correction was initiated if the weight went beyond daily fluctuations. Fine-tuning involved balancing one's intake, one's exercise, and one's mental state with regular exercise.

> If I find myself going up a little, I'll just crack down on the discipline a little bit. I still like some excesses, you know. So I just cut back on some of those extra rich little things, goodies that I like now and then. (D)

> I feel better when I'm active. Mentally I feel better when I'm active: physically active. So I had to try and tone those two things in. (K)

Self-reinforcement involved the affirmation that one was now thin. This strategy was necessary when one's image of oneself began to slide back to its former state. Some of the strategies for reinforcing the image that one was a thin person were buying fashionable clothes, identifying with thin friends, and seeking feedback to reinforce the transformation of one's image.

> . . . as soon as I put on these clothes and you know I've still got some of my old clothes. All I've got to do is put it on to feel like a frump again. I started comparing myself to the thin guys . . . . I started doing that a couple months ago and actually I still do it. See, I'm still getting enough negative influence that my subconscious is still making me convince myself that it's healthy when I compare myself to like . . . a good friend of mine. I found that I'm normal, normal weight. (D)

The outcome of balancing was a greater sense of personal freedom from the reconciliation of conflicting images, from the personal satisfaction of reaching one's goals, and from the integration of the revised image and lifestyle consistent with this image in one's daily life. The participants who mastered weight control felt freedom from the burden of personal and social sources of conflict. The personal satisfaction

of achieving a new image not only increased their sense of confidence and respect in self but was integral to their definitions of themselves.

> I feel freer. Yeah, more freedom somehow. I don't feel as restricted in what I can do. I feel as though I can participate somehow in activities that I wasn't comfortable before. You know I feel more confident around people .... People do seem to like to associate with thinner people. (D)

> I said to myself that I'll never let myself go like that again. It just won't happen .... Well the only way it would happen is if I stop doing what I'm doing. I would have to stop running, I would have to stop playing squash, I would have to stop weight-lifting, I would have to stop playing rugby. I would have to stop doing what I'm doing. I have no intention of doing that. As long as I keep doing some activity on a daily basis and as long as I continue to rely on myself for my food, as opposed to eating out, it won't happen. (K)

The transition from balancing to seeking new challenges was signaled by the awareness of new areas of incongruity that could be reconciled by further lifestyle revisions. These thoughts consisted of the cessation of smoking for both participants who reached this stage and the development of aerobic fitness for one of the weight maintainers who achieved weight loss by dieting. The balancing stage could be transcended because the participants felt they had mastered this stage and were free to move on to new goals and priorities related to increased development of the physical image they had of themselves.

> I say, what's the point of cardiovascular health if you're smoking cigarettes? You can't achieve one while you're doing the other. I torture myself worse about cigarettes than I did about being overweight. (D)

Detracting and Enhancing Factors in Stage Six

Figure 7 depicts the factors involved in balancing one's lifestyle to maintain one's revised physical image. The outcome of balancing was full weight control and

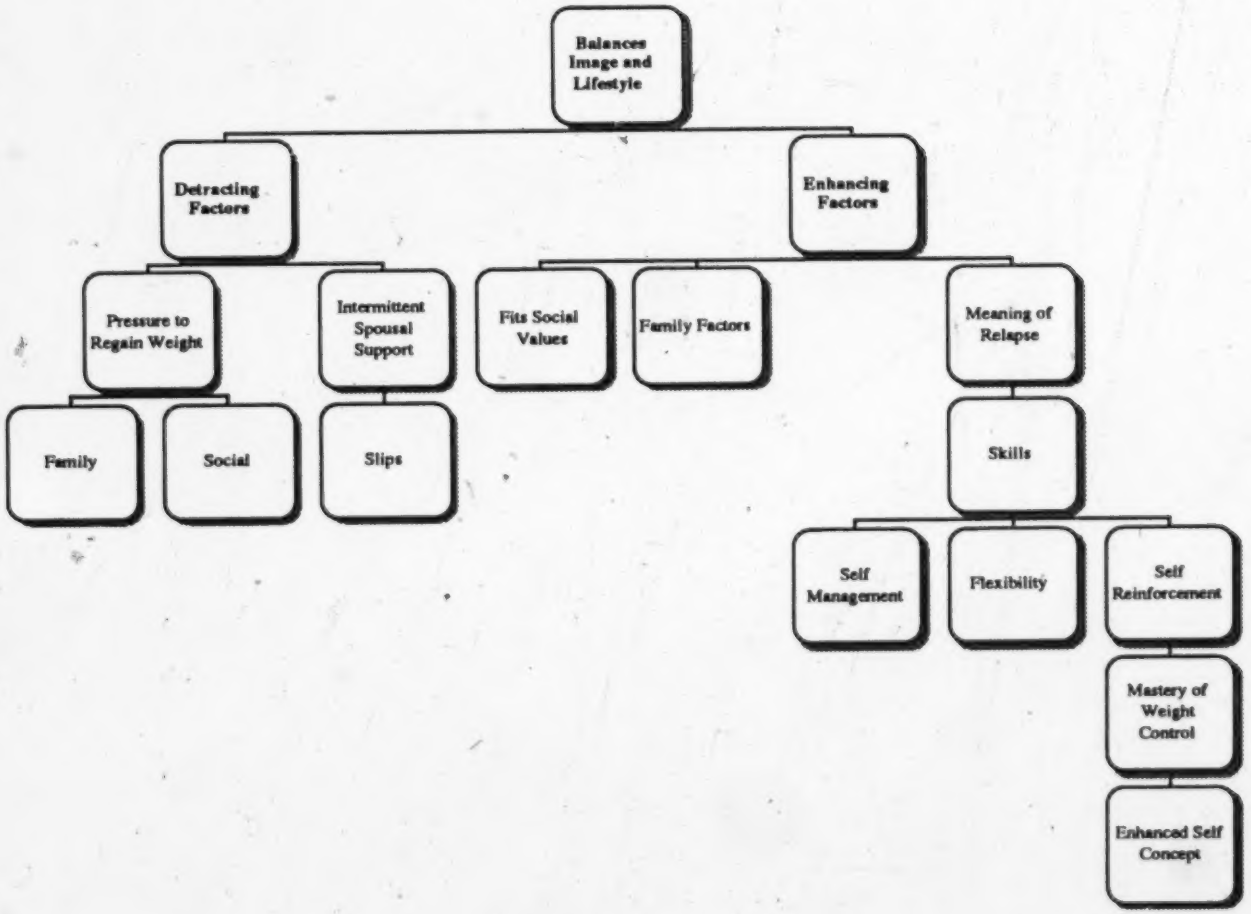

Figure 7: Stage Six: Balancing One's Image and Lifestyle

consequently an enhanced self-concept. However, if the changes could not be integrated into one's lifestyle, then slippage occurred.

Detracting Factors in Balancing

Social and marital factors detracted from the integration of the new patterns into one's lifestyle. As well, accommodation to small amounts of slippage interfered with balancing.

Social pressure. Social pressure to conform to a certain body shape interfered with balancing if these reactions were accepted more than one's own beliefs. As well, some friends were unable to accept changes that individuals had made in their appearance and lifestyle.

> If you feel good about your body, it doesn't matter now what people say. You know, all those cracks you get from those people saying that you look too thin or sick or whatever. (D)

Intermittent efforts of spouse. Integration of new patterns required the continued commitment and collaboration of both partners. If one partner made changes in intake and activity patterns and the other partner either maintained previous patterns or made sporadic attempts to change, then demands exceeded resources and setbacks occurred. Ambivalence on the part of the spouse interfered with both partners sustaining changes for the long term.

> She's either on one or another [diet] I'd say maybe 3 months out of the year. She's always going down to the gym, then quitting, and then going back and quitting. Pretty erratic. But I think it has affected me in some ways–her being up and down in her weight. (M)

Personal. Slipping in this stage depended on the degree to which the changes were integrated into one's lifestyle. The personal meaning of slipping had some

bearing on slipping, for if slips were expected then they became integrated into one's pattern.

> And now I'm at 176 right now and I know I'll be gaining this winter, because I usually do. (M)

Enhancing Factors in Balancing

The fulcrum that balanced one's lifestyle with one's desired image was an increased feeling of congruency. Some of the components that encouraged congruency were fitting social expectations, having a supportive social network, and perceived competency in self-management. These components facilitated balancing because they enhanced perceived increases in congruity.

Social norms. All of the subjects talked about the prevailing social approval of thin people who looked lean, trim, and fit. The participants who met this expectation realized their values were globally supported.

> Like if you were hiring a salesman, you'd want him to look good and sharp and well-dressed and slim and trim. (U)

> I'm quite satisfied with the way I look. I like some tone in my muscles. I don't like to have fat hanging on. I'm quite satisfied to be me. (K)

Social interactions. Congruity between social network expectations and personal expectations was realized when thin friends and associates gave positive feedback for weight control. This reinforced the perception that one was on the right track and fit into the thin world.

> I'm making new friends now that never really noticed me before, you know. Now I'm thinner and I don't know, I'm making more friends now and I'm doing better. (D)

Marital and family factors. The desire to help other family members to manage their weight facilitated integration of patterns because the environment was

conducive to the health of all involved. Balancing one's weight was determined to be important, especially if one had children with weight problems. Since the individual could empathize with the stigma his son received for being different, the participant decided to set an example for his son.

> He's 13 or 14 years old. I don't know if he's going to lose it or not. It bothers him . . . . I can see his frustration, when he's not the same as everybody else. (K)

Reciprocal support facilitated the subjects' motivation to maintain weight loss because there was pride in themselves and pride in their spouses' accomplishments. This enhanced the desire to maintain weight loss not only because neither wanted to return to the previous state but because the results were worth working to maintain.

> . . . she really likes what I've managed to do. She feels really proud going out with me now and she did before, too, because she's always really loved me, but I can tell she's even prouder going out with me . . . I've never been embarrassed to be out with her, but now I'm actually getting to the point that I'm actually proud to be going out with her. (D)

Personal factors. The personal definition of self with regained weight was an important factor in deciding to continue to maintain one's weight loss. Both weight maintainers indicated that returning to their previous overweight image would mean a major loss of self-respect. This newly-gained self-respect and perceived increased congruity was so important to the individuals that they indicated they would rather die than face the perceived bitter social and self-recriminations.

> It would mean that I just failed horribly, and this is something that has taken me this long to do and by God it's not something that I will ever let slip. I will weigh myself every day until the day that I die to make sure that I don't gain that weight back. That's how important it is to me. (D)

Achieving full weight control enhanced the subjects' belief that they were masters of their lifestyles and that positive outcomes were because of their abilities. Weight control, however, was only one part of the larger task of striving to maximize total health. When individuals were ready to make further revisions, they moved into the next stage.

> I want to maintain control of myself, full control of myself, and though I am not a constrained or restrained individual, I'm in control that way. I like to go out and let go and you know, party, but in the important things, I like to maintain my control and I've now achieved a physique that I've wanted all my life and I will retain that by using self-control. I'll never give it up. (D)

Stage Seven: Seeking to Develop One's Physical Image Further

The last and Seventh Stage was the seeking of new physical challenges to augment one's feeling of well-being. The key element of this stage was building on previous successes.

> I can picture actually achieving the body type that I'd like completely by toning up and maybe even getting into a cardiovascular program. Becoming what I consider actually physically fit . . . someone who can run a few miles without being winded. That's physically fit. (D)

Once new health goals were formulated in their minds and they could visualize achieving this goal, the participants used some of the strategies they had developed in working to achieve weight loss. One subject decided to quit smoking, and the other subject decided to build muscle for rugby season. Both subjects used available social resources.

> . . . it's very intense and there's a lot of strain. And you're working against your body saying, "No I can't do this any more." Like when you test. Once a month you test on the program that I'm on . . . and you gradually step it up until you fail, so they find out what your fail point is. So you're working your muscle to failure. I mean, that's as hard as you can go. Like you can't lift it one more time. (K)

Furthermore, both of the participants in this stage reached their goals. Because of the nature of the goals they had set for themselves, both of their body weights increased.

> I've gained eight pounds back since I quit smoking . . . . When I bought all my clothes, then I lost another seven pounds . . . . And all my pants felt a little looser and they all feel nice again. It's not a good enough reason though. I'm still going to take it off, that last bit. The next time that you talk to me I'll be 160 again. (D)

> I'm more muscle now than I was last September, but I weigh a little more so I've exchanged some of the fat that was on my body for muscle. Okay . . . I'm 194 pounds, you know, and my waist has stayed the same. But my legs have got bigger. My arms got bigger, my chest, I grew pec muscles. After 40 years of life, I finally had a pectoral muscle. (K)

Consequently, the individual who regained some previously-lost weight returned to working at weight loss and balancing whereas the person who gained muscle started thinking more about whether he wanted to run a marathon or not.

> If I did quit smoking, I'd like to try a marathon . . . . I'd have to drop some weight to run a marathon, but if I decide that's what I want to do, then I'll go ahead and I'll do it. (K)

The process of matching one's actual and desired appearances was described as being a spiralling process. As long as there was no backsliding, the person might continue to stay at the current level attained. However, depending on the personal goals one had for oneself, there might be further building from each previous success.

> I think there are some cycles that you go through. It's a matter of getting, you know, sort of on that upward spiral so that things become, you're always going up, or at least sideways. I mean you're not going back. (K)

Detracting and Enhancing Factors in Stage Seven

Maintenance of weight loss increased one's self-respect and stimulated a desire to strive for greater mastery of one's lifestyle to optimize well-being. Figure 8 illustrates some of the facilitating or detracting factors involved in seeking and achieving new physical challenges.

Detracting Agents to the Seeking of New Challenges

Balancing or Stage Six was returned to if less than optimal consequences resulted from attempting new challenges. There was not, however, a total reversion to previous habits at this stage, because slips were perceived to be setbacks rather than failures. The only detracting factor identified was the potential for relapse.

Negative consequences. If there was the perception that negative consequences for weight control could occur from attempting new health goals, then balancing was maintained. The perceived benefits of achieving new goals had to outweigh the benefits of maintaining an equilibrium before this stage was attempted.

> I was told by the therapist at the laser therapy centre where they gave me my treatment to help me stop smoking . . . . She guaranteed me, absolutely, that I would gain weight. She said, "Don't believe the statistics where they say that a third of the people gain, a third of the people lose, and a third stay the same. That's the Heart Foundation's stats." (D)

Since resources were needed to develop and maintain new patterns as well as maintain the revised patterns, new challenges along with maintenance of weight loss could be attained if sufficient resources were available for both. The subject who stopped smoking did not have the resources to lose the regained ten pounds as well as maintain smoking cessation because he was still working on fighting his craving for smoking.

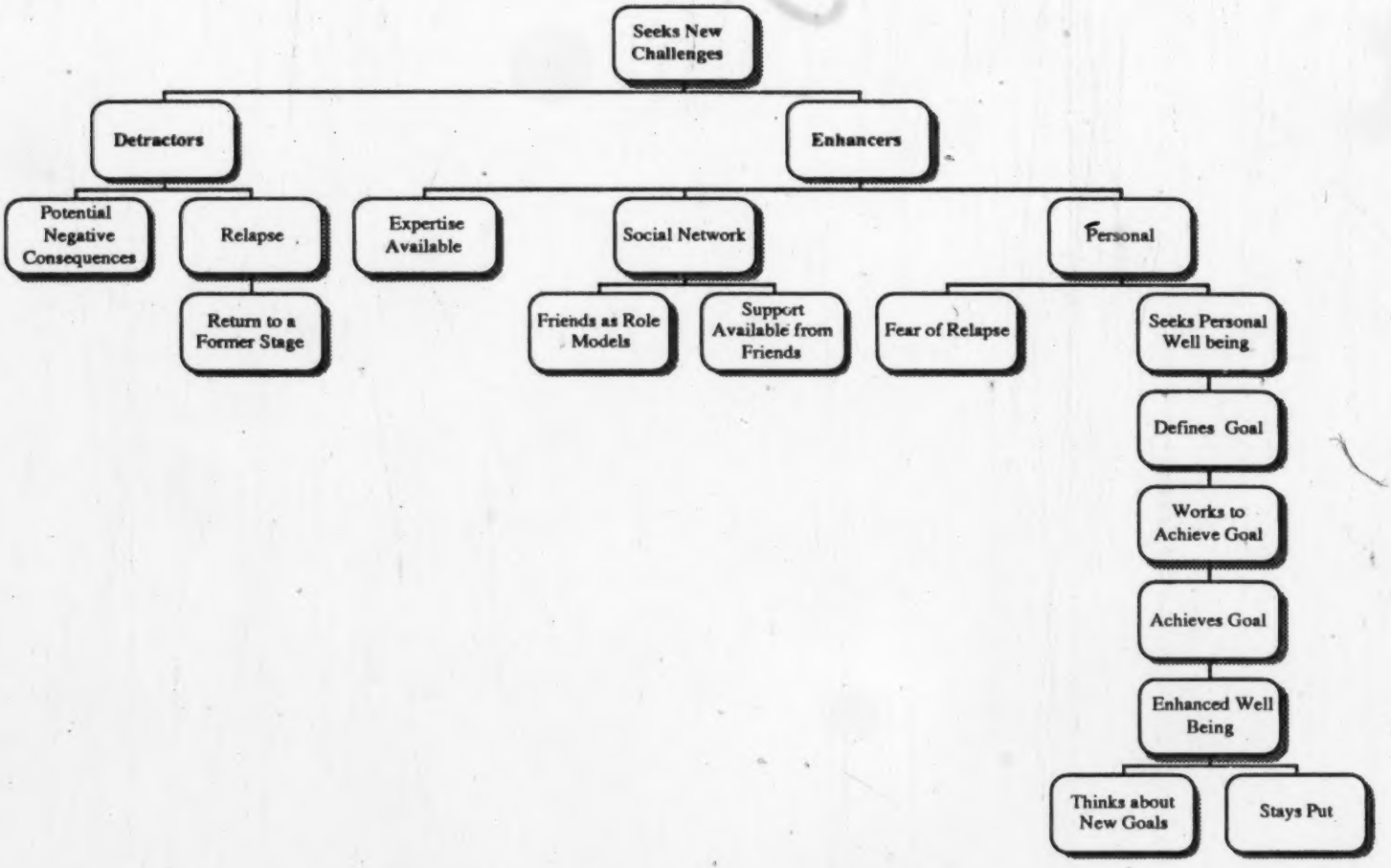

Figure 8: Stage Seven: Seeking New Challenges

> But through using self-control, not lack of control, I gained that weight and that control was stopping this ugly habit of cigarettes and now that I have that kicked, I'm going to lose that weight again. (D)

Enhancing Factors to the Seeking of New Challenges

Some of the facilitating factors that encouraged participants to take on new challenges included the availability of specialized resources, friends who were working at higher levels, and a personal desire to optimize well-being. These factors encouraged the individuals to continue with the transformation process.

Expertise available. The use of professional resources was different in Stage Seven than in the externalizing stage. In Stage Seven, there was an orientation toward using resources as a catalyst for self-sustaining activities that was not evident with the use of specialized resources in Stage Three.

> And I went and saw an exercise physiologist and I said, "Look, I'd like to do some weights. I've never done this kind of thing and it's something that I've never done and it's something that I'm not really keen on doing. But I'd like to play one more year of good grade rugby. I know I have to be a little stronger than I am now. I have to put some weight on. But I don't want to just go out and eat." (K)

Role models. Having friends that were working at higher levels than themselves encouraged the participants to think about new challenges. Since the participants had already achieved one challenge, they returned to the image they had had of themselves to determine if this was an image they wanted to pursue. In addition, they speculated about the obstacles they would need to confront.

> I've got a guy that's trying to talk me into training for a marathon and I can't even hope to train for a marathon unless I quit smoking . . . . And that's something I've always wanted to do--how badly do I want to do it? (K)

Personal factors. Despite the fact that these individuals had increased

confidence in their ability to master weight control, there were still doubts about possible relapse. Weight control, like other lifestyle enhancement patterns was not self-sustaining. The participants were aware that they would be required to monitor, correct, and adjust their habits on an on-going basis to sustain the revisions they had accomplished.

> But I'll still weigh myself everyday. I think that's a good part of it. (D)

The strategies for making further revisions in one's lifestyle involved the same sequence of desiring an increase in well-being, the expectancy of self-attaining this image, changing one's lifestyle to reach this image, and reaping the rewards of mastering another challenge.

> . . . it's like goal setting, you know. Some goals you set they're three years away, and some goals you set and they're one year away and others that you set that are six months away. It's like this summer when I ran ten kilometres for the first time. You know, I knew that I'd done it. It wasn't that I'd done any blazing speed or anything like that, but it's nice to know you can go out and do six or seven miles at one time. I felt good about it. (K)

Meeting new personal challenges led the individuals on. The pursuit of well-being was conceived as an on-going process and not an end state.

> . . . it gives you a good feeling. I'm always trying to learn something new. I like to know little things that others don't know. It gives me this edge in life. (D)

Negative Case

A negative case, according to Field and Morse (1985), has an experience that runs contrary to the general social psychological process. One case was identified that did not fit the process of transforming one's image because he did not have a negative image of himself in spite of the fact that he gained thirty pounds. In fact,

this subject had a negative image of himself when he was thinner or "skinny," as he described it.

> I was skinny, so that was part of the whole picture. You know, somebody said, "Hey skinny." Well, that was just like a knife in you. Everybody laughing, you know. I did one year of high school in the city here and that's where I broke out of my . . . all of a sudden I was worth something. All of a sudden the teacher would come and ask me if I could participate in this play, because you're good at it. All my life in [my hometown] I never, never had anybody ever come and tell me,"Well, you're good at this. Why don't you do this?" (J)

Maintaining this transformed image was as crucial to him as it was for those who had achieved the transformation through the mastery of weight control. The subject indicated that he never wanted to feel as bad as he did when he was an adolescent.

> It was bad for me, you know, cause I was ugly. And I was just as skinny at eighteen years old and I thought I was some good looking then . . . so I had to start selling myself on, you know, "Hey you're just as good as anybody else." That's the way I'm going to be from now on . . . . I don't want to ever feel that again. (J)

The image transformation of being skinny but acceptable was such a part of his identity that he saw himself as a thin person in spite of a 30-pound weight gain.

> It was kind of like a joke, you know. Like I've got a pot . . . . "No! I can't believe this–I got a pot! Can you believe this? Me, a skinny guy!" . . . . It was a surprise. (J)

Even though he recognized the weight gain, he did not attribute the gain to the way he lived; the weight gain was attributed rather to a misfortune of fate. This may in part be due to the fact that his greatest weight gain occurred after he quit smoking.

> But then I shouldn't gain any weight. Cause I'm a skinny guy. I was skinny all my life. You know I'm tall, I'm a string bean . . . Somebody threw me a curve, you know. I'm supposed to be skinny all my life, eat anything I want to, you know, and as much as I want. (J)

He entered the diet cycle to recapture his youth. Since this was recognized as being unattainable, he kept readjusting his weight goals to resume feeling positive.

> Yeah, I was about 38, 39, maybe. Yeah, the old adage of, "I want a sports car and lots of hair." I can say, "Hey, I still . . . (J)

> And you say, okay, "I wanna go to 180" so you take a diet and you go to 184, right? . . . Yeah, that's close enough. Heck, what's four pounds, you know . . . . So then you regain to 197. Then you go down to 186 or 187 . . . . You settle for a little less . . . . Well see, like right now like I'm 213, see now I'm starting to settle, I'm starting to say to myself now again, "Ah, what the hell, 213's, not that bad." You know what I mean. But then all of a sudden I might go up to 220, right, and then 250, and when's it going to stop? (J)

Even though he regained all of the weight and realized that he might gain more, he did not feel bad about his appearance. Maintaining the positive self-concept, through his own means, was more important to him than improving his health status or conforming to what others thought.

> See, I feel good about myself whether I'm fat or not. You know. The only thing I don't like about me being fat is I don't feel good. But you know, it doesn't bother me that I look fat. (J)

The conundrum he was faced with was that his health problems were being aggravated by his positive attitude toward his excess weight, but his positive attitude also maintained his perceived state of well-being. Even though he could see that his health status was decreasing and he knew he should do something about his weight, the dilemma was unresolved.

> You think that a health reason would be an excellent reason, the only reason to really say "Hey, come on." You know, "What are you doing?" And I mean I've been saying that to myself 100 times now and I'm still going back to the same bloody thing [weight]? What's wrong with my mind? You know, there's gotta be something else. It's ridiculous. You know I'm mad at myself. (J)

> Like I said, right now I'm down, not a good time to make any decisions. You know. Once I get up again, I'll probably start thinking "Okay, we gotta do this, we gotta do that." (J)

At the end, he decided to question the accuracy of his self-image. His self-esteem was somewhat diminished because of his inability to keep his weight off in the face of health risks. He vacillated between remembering the costs he had suffered when his image was negative and the potential costs that might be experienced in the future.

> . . . the more I listen to some of these young folks, and they say, "Gee, I gotta find myself" . . . it seems to me that it is making more sense all the time, you know. A lot of people go through life without ever knowing themselves, and I think maybe I don't know myself enough yet. But then I analyze myself to death. I don't want to be sitting in some nursing home with a stroke or whatever, and now I'm back up again so it's probably not scaring me that bad. (J)

It remains to be seen whether this individual will reconcile the conflict by defining a more realistic image of his potential and make the transformation.

Summary

The core variable identified in this study was the transformation of one's image from a diminished state to one of greater well-being. All of the seven stages related to this transformation process. In Stage One, there was the development of the weight problem. This led to Stage Two which was the recognition of the problem and the determination of ways to manage it. The strategies included avoidance of the issue, conforming to external standards, and/or the decision to develop self-determined methods to transform one's image. Stage Three or seeking to meet external standards did not lead to long-lasting transformation. The subjects were left trying to determine a better way to make the transformation. Stage Four,

which involved the development of self-determined standards along with an incessant drive to lessen the burden associated with excess weight, built personal confidence that the transformation could be achieved. Stage Five involved making the transformation. The transformation was achieved via lifestyle changes that could be permanently maintained. Stage Six involved the desire, skills, and resources to sustain the transformation. Once Stage Six offered no further challenges, Stage Seven followed as individuals continued with the transformation process.

The image individuals had of themselves was important in facilitating or diminishing the motivation to seek weight or lifestyle changes. The individuals who had a more balanced image that contained positives and negatives sought lifestyle change, whereas the individuals with positive or negative self-images sought weight changes.

Individuals with a negative self-concept did not achieve their weight goals. This was due to the perception of a lack of inner control for personal weight management.

The negative case, or the individual with the positive image, maintained his positive image in spite of the inability to maintain weight loss and in spite of health problems associated with excess weight. In fact the process he went through could be called maintaining a positive self-image. The conundrum he was left to resolve was to find a way to accept a negative body image and still maintain a positive self-concept.

It appears that one's definition of health, one's self-concept, and one's perception of the way to achieve weight management all affect the degree to which

weight loss is maintained. As well, one's environment plays a crucial role in facilitating or detracting from the maintenance of weight loss.

CHAPTER V

Discussion

The purpose of the study was to examine the process from weight loss to weight maintenance for males and to develop a model to explain this process. The general research question derived from the literature was, "What is involved in the process of successful weight maintenance for males?"

The specific sub-questions derived from the literature were as follows:

1. How do men who are attempting to maintain weight describe this process?
2. What are the personal, family, and social difficulties encountered by men who are currently involved in the process of maintaining weight loss?
3. What are the personal, family, and social factors described as being helpful to males who are currently involved in the process of maintaining weight loss?
4. What differences occur in the process of weight maintenance depending on the length of time the weight loss has been maintained?

The core category identified by the participants in this study was finding a way to transform one's negative physical image in order to reduce the perceived burden of exceeding personal or social standards for weight. Males who defined their physical image of self to be more congruent with their perceived true nature were able to achieve and maintain weight loss because they could make the adaptations in their values, activities, and their social network to attain and maintain an image

they could be satisfied with. On the other hand, males who defined their external image in terms of social standards or ideals were not able to achieve and maintain weight loss because the selection of these goals increased the disparity between the image and their capabilities. Change in this case occurred at a superficial level.

The basic social psychological process of transforming one's image to fit with one's potential involved seven stages. These stages were as follows: (a) exceeding an acceptable weight range, (b) recognizing that social standards or personal expectations have been crossed, (c) seeking to meet external standards and getting caught in the diet cycle, (d) defining a realistic desired physical image and developing a plan to achieve this image, (e) changing one's lifestyle to attain this desired image, (f) balancing one's lifestyle to maintain the revised image and increased well-being, and (g) seeking to enhance one's physical image further by seeking new challenges. Although this process appears to be linear, there was a great deal of ongoing cycling within and between the stages.

The stages in the transformation process involved either progression toward or setbacks in achieving and maintaining weight loss. Personal characteristics, the availability of support, and the perceived nature of community resources and services helped or hindered the transformation process. The individuals who achieved and maintained weight loss developed and followed attainable self-defined standards for appearance, well-being, and lifestyle. In addition, they developed a social network that was compatible with these standards. Finally, the individuals who maintained weight loss perceived that community resources and standards were to be used to assist them in optimizing their well-being.

Conversely, individuals who lost weight and then regained it followed vague, idealistic, or socially accepted standards for appearance, health, and lifestyle patterns. Furthermore, they did not alter their support network to assist them in managing their weight. These individuals perceived weight management as a function of self-restraint rather than lifestyle choice. Finally, the individuals who were unable to maintain weight loss perceived community resources and services as providing a solution to weight problems rather than supporting lifestyle changes.

Of the seven subjects in this study, three individuals were unable to define a physical image that was congruent with their perceived potential and they stayed in the diet cycle or Stage Three. The other four individuals were at various stages in the process of transforming their image. One individual was in Stage Five, which involved changing his lifestyle. Two individuals were in Stage Six or balancing their lifestyles to maintain their revised image. The last individual was in Stage Seven, which involved seeking new physical challenges.

This chapter will include a discussion of the ways in which the literature supports, contrasts, or extends the findings of each of the seven stages. As well, the relationship between the psycho-social conditions and the processing of the problem will be discussed to clarify aspects that differentiate weight loss maintainers from weight regainers. The relevance of the findings will also be discussed in light of contributions that can be made to three models associated with weight management and to provide suggestions for future research. Finally, the chapter will conclude with a discussion of the research method and implications of the study for education and practice.

Stage One: Exceeding An Acceptable Weight

Little literature exists to explain when it is that males perceive they are gaining weight. The findings in this study indicate that personal factors involved in delayed perception of weight gain were related to the reduction of physical activity associated with adulthood, the enjoyment of food for its own sake, and being overweight in adolescence.

The literature supports these personal factors as being related to gradual but unperceived weight gain for males (Herman & Polivy, 1984; Zlotkin, 1985; Health and Welfare Canada, 1989). The findings in this study extend the literature in two areas: the strategies used to manage a negative body image and the strategies used by males to replace food as a form of emotional support.

Five of the seven subjects were overweight in adolescence. All five individuals developed a negative body image associated with being overweight at that time. The resolution of this body image problem was achieved by two individuals. The individual who resolved his body image problem in adolescence did so by the development of his athletic abilities. As for the individual who resolved his body image problem in adulthood, he compartmentalized his body image from his self-image until he figured out a way to change. One individual was continuing to work at improving both his body and self-images. Two individuals maintained their negative body images and their negative self-images. The management of a negative body image associated with excess weight in adolescence had an influence on both the process and the outcome of weight management for the males in the study. More work is needed to determine the full range of strategies used to resolve a negative body image and consequently a negative self-image attained in adolescence.

There is very little literature that describes the use of food by males as a method to attain emotional support (Ganley, 1989). The literature does, however, recognize that the use of food for psychological reasons is associated with potential weight problems (Zlotkin, 1985). The two individuals in this study who were able to substitute exercise as a form of stress management made the transition from being overweight to becoming weight loss maintainers. More research is needed, however, to understand the full range of strategies in which eating for psychological reasons can be altered before major weight problems occur.

One social network factor associated with gradual but unperceived weight gain that is reported in the literature is the synchronous pattern of weight gain between partners (Garn, Bailey, & Cole, 1979). The findings in this study offer mixed support for this association. Five of the seven subjects in this study were married. Synchronous weight gain was a factor indicated by all of the subjects. Males were less likely to perceive weight gain if their spouses were either overweight or at a normal weight. The individuals in these instances did not have the visible reminder of their spouses' weight changes from normal weight to excess weight to remind themselves that this may be happening to them as well.

Similarly, having friends in one's social network with more severe weight problems than oneself obscured the perception that one was gradually gaining weight. Synchronicity in weight gain was perceived when thinness was valued.

The literature cites social factors which contribute to delayed perception of weight gain. These factors are the acceptance of differential standards for excess weight on the basis of gender (Schwartz, 1984), the acceptance of the stereotypical male gender identity (Forrester, 1986), and a crisis-oriented approach for some

males with regard to managing health problems (Harrison, 1978; Colvin & Olson, 1983; Gove, 1984; Verbrugge, 1985).

The findings in this study offer limited support for the gender differential as being related to delayed perception of weight gain for males. More support was found regarding a crisis-orientation as being related to a delayed perception of weight gain. No support was found for traditional gender roles reducing the perception of somatic signals and hence delaying the perception of weight gain as indicated by Forrester (1986).

Two studies were located that investigated the relationship between the perception of weight, objective measures of weight, and gender differences in perceptions (Miller, Coffman, & Linke, 1980; Stewart & Brook, 1983). These studies found that one third of the males underestimated their weight, whereas the majority of females overestimated their weight. The conclusion drawn was that both genders accept the social preoccupation for thinness of females.

Three of the seven subjects in this study commented that the preoccupation of society against excess weight for females interfered with the recognition that they were gaining weight. More important, however, was the factor cited by the other four subjects of not wanting to recognize that they were gaining weight. This refusal to attend to body sensations supports the crisis-oriented explanation for not perceiving weight gain rather than the inability to perceive somatic sensations as proposed by the traditional male gender identity explanation.

Stage One involved the development of an image problem. All seven individuals entered and moved through this stage because they developed or maintained patterns that contributed to weight gain. More research is needed to

determine the individuals who identify weight gain in the early stages and attend to it before it becomes a major image problem.

Stage Two: Recognizing Conflict

The literature suggests that the male image is associated more with power than with attractiveness, the case for females (Dwyer, Feldman, & Mayer, 1970). Changes in weight need to be extreme then, before one's image of power is altered and excess weight is attended to. Furthermore, the literature suggests that strategies to alter one's weight depend on the perceived views regarding the causes of obesity.

Individuals in this study recognized that they were either overweight or obese when they received social harassment for their excess weight, felt unattractive to the opposite gender, or felt physical limitations from excess weight. The perception of reduced power was a factor cited by members of one individual's social network when he lost a great deal of weight. However, the seeking of personal or lifestyle control is associated with the attempt to regain mastery, so reduced power may well be a factor in recognizing and deciding to confront one's excess weight.

The causes of obesity perceived by the individuals in this study were twofold: a lack of personal control and inappropriate lifestyle patterns. Strategies to manage their excess weight ranged from avoidance of the issues through accommodation to social standards and methods to the development of a self-defined solution. Although the literature cites avoidance as a strategy for maintaining one's weight, there is no literature that discusses the decision to select social standards or self-defined methods of weight management.

Two studies were located that reported avoidance as a strategy to manage excess weight once it was recognized (Dwyer, Feldman, & Mayer, 1970; Stewart & Brook, 1983). Both of these studies indicated that approximately half of the subjects who perceived themselves to be overweight were not taking any steps to lose their excess weight. Another study that investigated the factors associated with maintaining excess weight found that excess weight was attended to when it was associated with illness (Casanueva & Magana, 1988). As well, the selection of avoidance as a strategy fits with the Health Belief Model (Becker, Maiman, Kirscht, Haefner, & Drachman, 1977). This model suggests that if the goal is not attractive or if the individual does not perceive himself to be capable of achieving the goal, then avoidance is selected.

The findings in this study indicate that avoidance of confronting and reducing one's excess weight was related to feeling overwhelmed with the task, attributing the problem to fate, and selecting other priorities that one felt capable of achieving. Thus the findings in this study support the Health Belief Model's relationship of perceived lack of efficacy and goal unattractiveness and avoidance.

The decision to accommodate to meet social values for weight norms has been cited in the literature as a female phenomenon (Schwartz, 1984). All of the males in this study were subject to social devaluation because they were overweight. Yet three of the seven subjects sought to remove the burden of social disapproval for excess weight by conforming to social standards for weight norms and restraint methods for weight loss. This decision was related to the perceived cause of excess weight. These three individuals defined weight gain as a lack of self-control. Since

diets impose control, they selected to follow this route. Unfortunately these individuals were the weight gainers.

The decision to confront one's weight problem by developing a solution which would resolve one's weight problem on a permanent basis was selected by the four individuals who were able to work towards achieving and maintaining weight loss. These individuals perceived excess weight as being a factor of inappropriate lifestyle patterns. However, two of these four individuals discovered this interpretation after entering the diet cycle and going round the cycle a few times.

The selection of ineffective methods for weight management stems from the definition of excess weight as being a problem of self-control. Conversely, the selection of effective methods for weight management was related to the definition of excess weight as resulting from inappropriate lifestyle patterns. More research is needed to understand the factors associated with the definition of the cause of obesity, as this plays a key role in the process and outcome of weight management.

Stage Three: Seeking to Meet External Standards

Weight control methods, according to health care professionals, are considered to be effective if they lead to permanent weight loss and provide no expense to one's overall health (Rock & Coulston, 1988). These authors also suggest that the public labels weight control methods as being effective if they promote rapid weight loss.

Three of the seven males in this study used either commercial or clinically administered diets to lose weight. Two of these subjects who were weight regainers selected weight loss methods in order to lose weight fast. The other regainer, who

selected a restraint diet, quit his diet when he no longer lost weight in a consistent fashion. These findings, therefore, support the literature.

The four subjects who were in the process of achieving and maintaining weight loss labeled weight loss methods as being effective if they were compatible with their lifestyle and could be sustained on a permanent basis. This finding is in contrast with the literature that cites the public as evaluating weight loss methods as being effective if they promote rapid weight loss. Again, the perception of effective methods fits with the definition of the problem.

The findings in this study also indicate that individuals select rapid weight loss methods when members of their social network are using them. No literature was located that investigated the role one's social network plays in influencing the methods used for weight management. One's social network likely plays an important role in the definition of the problem as well as the strategies selected to resolve the problem. The key is to pick the social network with health-enhancing values.

The literature indicates that there are physical as well as psychological costs for repeated weight cycling (Rock & Coulston, 1988). These authors propose that physical adaptation to reduced intake, expectations of failure after numerous attempts to diet, and barriers to learning new methods occur with weight cycling.

The findings in this study support the literature indicating there are costs associated with repeated weight cycling. Barriers to learning new methods in this study consisted of determining ways to increase personal control further rather than change one's lifestyle. Seeking personal control led to further entrenchment in the diet cycle.

The two individuals who were able to move beyond the diet cycle experienced rapid weight loss because of major shifts in their eating patterns. They experienced weight loss faster than they had with diets and realized that they could make major changes, reach goal weight, and sustain this weight loss if they continued making changes in their eating patterns.

More research is needed to understand the ways in which the diet cycle is by-passed and the factors that move individuals from the diet cycle to more permanent lifestyle changes. Coincidental weight loss and the strong desire to attain a more personally satisfying image are insufficient factors to help individuals caught in the diet cycle to move forward.

Stage Four: Redefining One's Image

The ability to define a desired physical image that would be acceptable to oneself differentiated weight loss maintainers from weight regainers. The definition of an acceptable desired image involved the realization of one's desired image, the desire to fulfil one's capabilities, and the commitment to live accordingly.

Some investigation has been conducted on the relationship between locus of control, self-esteem, and effective weight management. These studies relate most closely to ability or inability to define a new physical image.

Hertzler (1981) found that adolescent weight managers needed to feel good about themselves before they were able to control their weight. The same author also suggested that the development of a positive self-image was needed in order to identify and express feelings, develop independent and adaptive behaviour, and take control of one's life.

Pearlson, Flournoy, Simonson and Slavney (1981), on the other hand, did not find a relationship between a positive or negative body image attitude and predicted success in weight reduction for adults. These authors found that obese subjects of both genders rated their bodies as unattractive. Success with weight reduction was related to an age-gender interaction and the length of time in the program. Older males and younger women fared better.

The methods used to measure body image in the latter study did not allow for the subjects to modify directly the visual picture of their body parts with the conception they had of their overall bodies. Measurements of the perceived distortion in four body parts were obtained.

The findings in the present study support the conclusions of Hertzler (1981) in that a positive self-image was associated with effective weight management. Weight loss maintainers were able to compartmentalize the negative aspects of their body from their self-concept. These individuals selected to follow personal goals rather than social expectations for weight management and were able to achieve these goals.

However, the findings in this study also indicate that a global negative or positive self-concept interfered with the ability to set and meet realistic expectations for one's appearance. There have only been studies concluded with children to determine the development of a negative body image associated with excess weight, but these studies do not connect body image with weight management.

Staffieri (1967) found that boys between 6-10 years of age judged a mesomorph shape as the most favourable shape and that at about 8-9 years of age they began to be dissatisfied with their body if it differed from this ideal. Similarly,

Mendelson and White (1985), in a study conducted to investigate the degree to which overweight children and adolescents had low self-esteem, found that although excess weight is associated with decreased body self-esteem, the length of time one had decreased body self-esteem was more related to the valence of one's self-concept.

This means that the longer excess weight is perceived as a problem, the greater the tendency for a negative body concept and ultimately a negative self-concept. Furthermore, the findings in this study suggest that the development of this negative self-concept interfered with the development of a desired physical image that one could be satisfied with.

Five of the seven subjects in this study developed a negative self-image associated with excess weight during adolescence. Three of the individuals were able to rectify this negative self-concept and went on to work toward achieving and maintaining weight loss. These three individuals were able to define an acceptable desired image because they compartmentalized the negative aspects and maintained their self-esteem. The other two individuals could not do this.

Thus, the study by Pearlson et al. (1981) which was not able to measure global or compartmentalized components of one's self-image because they focused on the distortion of body parts, did not find a relationship with the valence of body image and effective weight management. More sensitive measures for global as well as compartmentalized aspects of one's self-image and body image are needed to understand clearly the role a positive or negative evaluation of one's body image plays in the effectiveness or ineffectiveness of weight management.

The desire to become what one is capable of becoming was associated in this study with the subjects' definition of health. Weight loss maintainers viewed health as optimizing well-being. Weight regainers, on the other hand, viewed health as the prevention or control of disease, functional capacity, or looking and feeling well.

Colantonio (1988), in a study that investigated lay concepts of health for adults (females=52; males=48), found that definitions of health ranged from not being ill to feeling positive. Other definitions included looking well, feeling fit, engaging in good health behaviours, and having functional capacity for daily activities. Wellness has been defined as practices initiated and sustained by the individual which integrate the body, mind, and spirit. This integration is intended to develop and maintain positive physical functioning, promote growth, and support the achievement of personal and social aspirations (Petosa, 1989). The literature thus indicates that a range of definitions for health exist in the general public.

More research is needed to understand the relationship between the definition of health and effective weight management. The connection of weight management to the higher goal of optimizing one's health appears to be a differentiating factor between weight loss maintainers and weight regainers.

Johnson (1985), in a paper looking at relationship commitment, defines personal commitment as perceived satisfaction with anticipated or received rewards, the definition of self in terms of the commitment, and an internalized moral commitment to act for the benefit of self and others. Commitment is believed to differentiate individuals who persist toward goals from those who in the event of difficulties, do not.

The findings in this study suggest that personal commitment to one's self-defined values differentiated weight loss maintainers from weight regainers. The definition of a desired image that was congruent with one's personal values, one's personal capabilities, and the other goals in one's life was more likely to be achieved. This suggests that personal commitment to develop one's potential was more important in maintaining weight loss than commitment to achieving specified goals.

More research is needed to understand all of the factors involved in developing an image that can be sustained once it is achieved. Personal goals are developed to reduce the discrepancy between one's perceived self and one's desired self. The development of this image appears to be a crucial factor in determining whether weight loss is maintained or regained.

Stage Five: Changing One's Lifestyle

Studies on health-related behaviour change have been focused at the individual level. The findings in this study suggest that in order for achievement and maintenance of weight loss to occur, change must be an ongoing process and involve change at both the individual and the family levels for married males. Lifestyle change at the individual level requires evidence of results in proportion to one's efforts, adequate problem solving skills, the ability to set short- and long-term attainable goals, and acceptance of the responsibility for weight management. Lifestyle change at the family level, however, requires negotiation skills, spousal collaboration toward mutually agreed-upon goals, and mutual responsibility for the development and sustenance of health-enhancing family patterns. Key issues in

changing one's lifestyle involved assuming personal responsibility for weight management, negotiating health-enhancing family patterns with one's spouse, and replacing unsupportive friends with more supportive ones.

Personal responsibility for weight management has been a neglected area of study in weight loss and maintenance of weight loss. Seeman and Seeman (1983) suggest that the personal assumption of responsibility for one's health is related to a more active role in correcting problems at an early stage, a more vigorous self-management style, and greater reported levels of well-being.

The findings in this study support, for the most part, the conclusions of Seeman and Seeman (1983). Individuals in this study who delegated the responsibility of managing their weight to either their physician or their spouse regained weight. On the other hand, the majority of individuals who assumed personal responsibility for the management of their weight were in the process of achieving and maintaining weight loss. One individual, however, assumed personal responsibility for both his initial weight problem and his inability to maintain weight loss.

The assumption of personal responsibility for weight management requires the determination of aspects that are under the control of the individual and those that are not. If this division is appropriately determined, then personal responsibility for weight management facilitates rather than detracts from maintenance of weight loss.

The family and the social environment play an important role in supporting or interfering with the individual's efforts to change his lifestyle to achieve a more desirable physical image. More research has been conducted on family factors

associated with maintenance of weight loss than social network factors, but neither area has been extensively investigated.

Families that are consistent but not rigid in their interactions have been reported to be more likely to support members requiring diet changes through team work and a spirit of mutuality (Hertzler, 1981). As well, perceived spousal support has been indicated as a key component in maintenance of weight loss for married males (Jeffery et al., 1984). In addition to these factors, differential feedback or information regarding the appropriateness of one's patterns has been reported as a factor involved in sustaining long-term maintenance of weight loss (Barbarin & Tirado, 1985).

The findings in this study support the necessity of negotiation, team work, and emotional as well as instrumental support in developing health-enhancing patterns at the family level. Differential feedback may be important in determining the changes required to lose weight, but this factor was not appreciated while changes were being implemented. In fact, only the weight regainers cited a dislike for differential feedback from their spouses.

Of the five married individuals in this study, four were having problems with weight management. Three subjects expressed the feeling that they couldn't talk freely about their weight or about their spouse's weight with their spouse. These individuals regained weight. Three subjects discussed how they felt their spouse's low self-esteem interfered with the effective weight management of both them and their spouses. Only one of these subjects regained weight. One individual could not work out leisure activities that were enjoyable for both him and his partner and

attributed this as a major impediment to problems with weight management. This individual maintained weight loss on a seasonal basis.

The one married individual who was able to negotiate new lifestyle patterns with his spouse indicated that patterns toward health enhancement commenced at the early stages of their marriage and changes to increase well-being were continually being worked toward. As well, he indicated that common values of health, positive feedback for progress toward goals, collaborative sustained efforts in making and integrating lifestyle changes, flexible roles, negotiation skills developed and used by both of the partners, and mutual responsibility for establishing and maintaining health-enhancing family patterns were related to his ability to maintain weight loss.

Therefore, for maintenance of weight loss to occur for the long term, personal responsibility for well-being must be assumed at the individual level; and mutual health-enhancing patterns need to be negotiated, executed, and revised at the family level on an ongoing basis. Otherwise, individuals who are unable to work out agreeable intake and activity patterns with their spouses will sustain weight loss only for the short term unless personal convictions are strong enough to maintain changes in spite of the lack of support.

This study did not investigate the actual interaction patterns of spouses, nor did it include the spouses' perception of interaction patterns that contributed or interfered with effective weight management of one or both of the partners. In order to understand the changes involved for effective weight management at the family level, research designed to investigate interaction patterns is required.

The revision of one's social network as a component required to achieve and maintain one's weight loss has not been reported in the literature, yet each of the four individuals who were involved in moving toward achievement and maintenance of weight loss cited friends as having either a positive or a negative influence in making changes involved in weight loss. Two individuals specifically reduced contact with individuals who no longer supported the changes they were making in their lifestyle. One individual was building a social network with those who had similar sports interests as he did so he could maintain weight loss on more than a seasonal basis. The last individual used thin friends as role models in determining changes he could make in his intake and activity patterns.

The weight regainers, on the other hand, did not alter their social network to be more supportive of the changes they were making during weight loss. One individual preferred to be somewhat socially isolated. The other two weight regainers still associated with and discussed weight concerns with individuals who had excess weight.

The adjustment of one's social network is thus an important component in changing one's lifestyle to achieve and sustain weight loss. The desire to identify with individuals who had health-enhancing values and activities differentiated the weight loss maintainers from the weight regainers.

Stage Six: Balancing One's Lifestyle with One's Image

It is recognized in the literature that maintenance of weight loss is self-managed rather than monitored by health care professionals (Rose-Colley, Eddy, &

Glover, 1989). The problem with self-management models is that they focus on correcting problems rather than optimizing well-being.

The findings in this study fit with the conclusions of Colvin and Olson (1984) that a powerful positive increase in self-image, self-esteem, and self-confidence was experienced with the achievement and maintenance of weight loss. The literature, however, does not indicate the reorienting strategies to maintain these positive feelings.

Throughout the interviews, four of the subjects who were in the process of achieving and maintaining weight loss, discussed an attitude transformation that had occurred. The transformation was described as being a process from an external orientation to a more internal orientation and then toward a more social orientation. These individuals changed from trying to please others to pleasing themselves and then to helping others. This process fits with the work of Kohlberg (1969) and Hogan (1973) on moral development. Hogan's process involved the following themes: (a) acknowledgement of social rules, (b) regarding the rules as personally mandatory, (c) the consideration of the consequences of one's actions, (d) the development of a personal and a social conscience, and (e) determining and living by autonomously set moral standards. Since the maintenance of weight loss involves the development of, the commitment to, and the ability to follow self-determined standards, it is not surprising that the process of transforming one's image discovered in this study fits with the development of autonomy in moral development. Both processes involve the development of ethics of responsibility that are independent of social norms.

As well as the attitude transformation that occurred, weight loss maintainers differed from weight loss regainers in the meanings attributed to regained weight. Weight loss maintainers viewed regained weight as an inability to live according to their convictions, whereas weight regainers interpreted regained weight to mean they had a character defect. More investigation is needed to understand factors involved in contributing to attitude change prior to and during weight loss and the maintenance of weight loss, as this differentiated weight loss maintainers from weight regainers.

Studies have cited lifestyle changes associated with the maintenance of weight loss (Rodin et al., 1977; Marston & Criss, 1984). These factors include increased exercise, the reduction of food intake for emotional reasons, changes in eating habits, and less responsiveness to eating associated with one's social environment. Although the findings in this study support these factors as being associated with the maintenance of weight loss, what is more at issue is how these changes are maintained. Self-management skills to maintain weight loss differ from the skills needed to achieve weight loss.

The findings in this study suggest that self-management skills for long-term maintenance of weight loss involved assessing one's motivation to integrate the changes on a permanent basis, setting standards to assess the degree to which weight could vary, monitoring the degree to which weight loss is maintained, correcting setbacks, and continuing to identify personal benefits for maintaining weight loss. The management of weight loss for the long term requires a clear vision of the desired image to be attained or maintained.

The skills taught in weight management programs for self-management include assessing motivation to change, developing strategies to pin-point inappropriateness, goal setting, and skill development (Rose-Colley, Eddy, & Glover, 1989). These programs do not teach individuals to develop, follow, or revise actions on the basis of self-determined standards.

Until self-management components of weight loss programs include ways to develop autonomous management, effective weight management will occur only for those individuals who can develop these methods on their own. More research is needed to understand the ways in which overweight individuals can be assisted in developing greater autonomy and at the same time use available resources to fit with these self-determined goals and needs.

No literature was available that investigated the social network factors involved in sustaining weight loss for the long term. Balancing, for the two individuals who maintained weight loss, required periodic reinforcement to maintain the positive feelings attained from achieving weight loss. This was achieved by reciprocal support from one's partner, the recognition that one belonged to the majority of individuals in the normal weight category, and developing new friendships with individuals with similar values.

Social support was cited as a factor involved in developing an environment conducive to the maintenance of weight loss. Partial weight loss may be maintained if one can not reorient one's values, one's activities, and one's social network in such a fashion to sustain maintenance of complete weight loss. Certainly more research is needed to understand the factors differentiating maintenance of complete weight loss versus partial weight loss.

Stage Seven: Seeking New Challenges

Wellness has been described by one author as "a metamorphosis where ever increasing potentials of functioning are realized" (Petosa, 1989, p. 15). This definition comes from the literature on adolescent wellness and not from the literature on health promotion for adults.

The findings in this stage fit with the concept in the literature of wellness. The factors for optimizing well-being found in this study were a proactive orientation, expanded confidence from mastering new goals, and the definition of a desired image in terms of one's potential. This study supports the conclusions of others that weight maintenance is more likely to be sustained if goals are "wants instead of shoulds", stated positively as well as in behavioural terms, and under the control of the goal setter (Mazzeo-Caputo, Danish, & Kris-Etherton, 1985; Berry, Danish, Rinke, & Smiciklas-Wright, 1989, p. 920).

The achievement of weight loss, the ability to maintain weight loss, and the increased well-being attained from sustained weight loss built the confidence level of weight loss maintainers. As well, establishing one's orientation toward growth rather than managing on a daily basis differentiated weight loss maintainers from weight loss regainers. One's definition of health, one's resources and skills, the development of a desired image and the commitment to live accordingly are the factors important in transforming one's image.

Linking the Model Developed with Formal Theories

The model of transforming one's image developed from this study has relevance to three main theoretical frameworks: weight management, family health

care, and health promotion models. Each of these models needs to include the subjective meaning of health, the process of making and integrating health-enhancing changes, and connections between and amongst individual, family, and social levels of interaction.

Weight Management

Models have been proposed to explain obesity (Herman & Polivy, 1984; Hirsch & Liebel, 1984; Stern, 1984), weight loss (Stunkard, 1984; Brownell, 1986) and the prevention of weight loss relapse (Brownell, Marlatt, Lichtenstein, & Wilson, 1986). However, weight maintenance has not been connected to wellness. Since deficit models have had limited success in promoting effective weight management, the incorporation of a wellness perspective may improve outcomes.

The personal factors discovered in this study that were associated with effective weight management involved the following: interest in sports, the definition of health as well-being, autonomy, on-going hierarchical goal setting and goal attainment, flexibility, formal reasoning skills, self-esteem based on intrinsic potential, and management by personal needs rather than social expectations. The personal components involved in reducing the effectiveness of weight management included esteem based on performance, a globalized self-concept, expectations that will-power would control one's weight, limited personal resources, ineffective stress management strategies, and ambivalence. Weight management models need to be based on empowering the individual rather than expecting change to occur with the provision of information.

Furthermore, until weight control programs consider the importance of adding psychological support to assist with the development of a realistic picture of a

desired body image, measures to enhance the transition from reliance on authorities to the development of autonomy and ways to develop a more positive definition of health, the amount of weight lost will be small and weight will be maintained only for the short term. Individuals need to understand the process of weight management as well as the potential outcomes.

Family Health Care Theories

Family health care theorists have suggested that a systems approach is needed to understand the interplay among the individual, the family, and social institutions involved in health promotion and risk reduction (Doherty & Campbell, 1988). This has stemmed from the movement toward the development of a biopsychosocial model in health care (Engel, 1977; Sperry, 1988). The biopsychosocial model suggests that the physical capabilities of the individual, the subjective inner world of the individual, and the nature of the social environment all have an influence on whether the individual copes effectively or struggles with the tasks of daily living.

The findings from this study suggest that the family components associated with reduced effectiveness for weight management for males were inappropriate eating and activity patterns learned from one's family of origin, unresolved marital conflicts, incompatible marital recreation interests, and the use of fad diets. On the other hand, family factors related to effective weight management were good eating and activity patterns learned in one's family of origin, common marital values and interests, the ability to negotiate new patterns that benefited all involved, reciprocal positive feedback, flexible roles, and mutual sustained commitment and effort. Individuals and family members need to understand the ways in which change is promoted effectively at the family level.

Weight management and family health care models need to include the ways in which individual responsibility for health is assisted by the development and revision of lifestyle patterns at the family level. A systems model using change theories is required to explain the ways in which effective health promotion is developed, maintained, and enhanced at the family level.

Health Promotion/Risk Reduction Models

Forrester (1986) identifies five health care needs for men: (a) social permission for males to talk about health concerns, (b) the identification of detrimental gender role influences on health, (c) education regarding unhealthy lifestyle factors, (d) a flexible health care system, and (e) the incorporation of an androgenous perspective for health care. The perspective that appears to be missing is the focus on wellness.

Until health is considered to be more than disease prevention or disease control, health promotion strategies will continue to inform those already committed to wellness. Health promotion programs need to identify individuals who may wish to adopt this definition and develop strategies to assist them in developing a more positive definition of health.

The social components related to ineffective weight management in this study included delicacy from friends and harassment from others regarding excess weight, health care professionals' use of control rather than collaboration to encourage change, the promotion of ideal images and weights, emphasis on treatment rather than well-being, and the commercial exploitation of the human desire to control weight easily and instantly. Conversely, the social factors associated with effective weight management included empowering resources, role models engaged in health-

enhancing activities, and friends who helped build one's confidence level. Health is still perceived by many in the general population as disease prevention or disease control.

Adolescent models of wellness seem to be more in tune with the definition of health as physical, psychological, and social well-being. Health promotion models for adults need to promote this focus.

More work is needed to understand the ways in which the environment and the individual interact to sustain or interfere with well-being. Empowering resources for self-care need to be developed to assist individuals in achieving effective weight management. As well, clarification of when the responsibilities for weight management are beyond the resources of the individual needs to be specified. Health promotion messages should delineate the collaboration required between the individual and the social environment in promoting well-being. Again, a systems-oriented model is required to determine the ways in which this collaboration can be achieved. Health promotion messages need to promote effective weight management as change incorporated in one's way of life to sustain weight loss.

Discussion of Research Method

In order to answer the research questions developed in this study, a grounded theory method was used. The strengths and limitations of the research methods used will be discussed under the following headings: method, sample, and researcher.

Method

Grounded theory involves the use of unstructured interviews and observation. These two tools provide rich data to establish a base for further research.

Data were collected from multiple interviews over an eight-month period which allowed the participants' views to emerge. As well, it provided the researcher with an opportunity to view the process of weight management unfolding. This timeframe provides some of the strengths achieved with longitudinal designs.

The limitations of using this method lie in the fact that the results are limited to the reality of the research participants. As well, observation was not used extensively in this study because of the personal nature of the phenomenon.

Sample

Grounded theory requires that the data be collected until no new information is identified and the categories are saturated. Furthermore, theoretical sampling requires a wide diversity of informants to both broaden and strengthen the emerging theory.

Seven males volunteered to participate in this study. They were predominantly married, working-class Caucasians. One subject had a university education and another was taking university courses. The limitation that emerged from the analysis of the demographics was that no males from professional occupations or males who were unemployed were part of this study. As well, individuals from different cultures did not volunteer to be part of the study. The experiences of these individuals may indicate the degree to which demographic variables influence the process of transforming one's image.

One major strength identified from the sample selected was the diversity in the experiences of weight management. Two subjects were weight maintainers, three were weight loss regainers, one subject was currently losing weight, and one subject

was a seasonal weight maintainer. This diversity in experiences provided a good base from which to discover the basic social process of transforming one's image.

Researcher

One of the limitations of qualitative research is the potential for researcher bias during the collection and analysis of the data. However, this problem was reduced with the use of diagrams summarizing the experiences obtained from the interviews. When diagrams depicting the experiences of weight management were used in seven of the thirteen interviews, all of the participants felt free to point out the inadequacies as well as the strengths of the model. As well, the diagrams condensed the researcher's interpretations and provided a manageable medium for validation. Furthermore, each subject was able to indicate on the overview drawing the stage at which he perceived himself.

Implications for Research

Implications for future research have been suggested throughout this section. However, one area that is specifically required is evaluation research to measure the degree to which programs meet the demands and needs of clients. Formative evaluation is on-going evaluation that occurs throughout the process of program planning, program implementation, and program revision. Evaluation research designs are needed to determine the ways in which existing intervention programs for weight management can be improved to allow individuals to exercise more control over their weight management and make choices conducive to maintenance of weight loss.

Theory development is an on-going process. Further research is required to gain a complete understanding of the factors involved which differentiate weight loss maintainers from weight regainers. Although the findings of this study are not generalizable, propositional statements were developed for use in future research related to weight maintenance for males.

Propositions Generated

1. The subjective meaning of health determines both the method and the outcome of weight management activities.
2. The more that individuals perceive weight management as requiring personal control, the greater the tendency for short-term maintenance of weight loss.
3. The more that food is replaced by other constructive methods of dealing with negative emotions, the more likely weight loss will be maintained.
4. The greater the degree of self-esteem, the more able the individual will be to accurately assess the status of his current body image and determine a realistic image of his potential.
5. The more that individuals are able to compartmentalize a negative body image from their self-concept, the more likely they will be able to define a new image and achieve this image.
6. The inability of couples to negotiate a mutual definition of health will affect the ability of both to achieve and maintain weight loss.

7. Long-term maintenance of weight loss for married males involves the assumption of responsibility for well-being at the individual level and effective negotiation at the family level.
8. Weight maintenance strategies will be integrated into one's lifestyle if there is a perceived augmentation in one's level of body self-esteem, satisfaction with the achievement of benefits accrued, and an increased sense of well-being.
9. Different types of support are required at different stages along the weight management process. Empowering support is needed to perceive and confront gradual weight gain, differential support to determine effective strategies for weight loss, and reinforcing support for the maintenance of weight loss.
10. The more one's social network accepts the transformation in one's appearance and lifestyle, the longer the maintenance of weight loss will be sustained.

Implications for Education and Practice

The present study has direct implications for wellness promotion, the early identification of potential weight problems for males, and strategies to improve existing intervention programs. The major change involves a proactive rather than a problem-solving focus.

Primary Promotion: Wellness

The question the findings from this study raise is what resources are needed to promote health as a movement toward optimizing well-being rather than a

condition that deteriorates with age. As outlined previously in this chapter, the reduction and control of excess weight is seen as the responsibility of the individual. Furthermore, weight control is frequently seen as the correction or prevention of problems rather than a step toward enhancing well-being. Moreover, weight management rarely includes the influence of the social environment. Three themes arise from this study regarding the promotion of weight control as optimizing well-being. They are as follows:

1. Health needs to be perceived as a process of optimizing well-being in all of the areas of one's life. Defining, attaining, and maintaining an acceptable body image is one of the components of well-being. Strategies to assist overweight individuals to do this are needed.
2. The lifestyle practices of the individual contribute to the enhancement or diminution of one's body image. Health promotion media campaigns need to focus on social network factors that enhance health.
3. The social environment contributes a great deal to whether individuals work toward enhancing or ignoring the potential of optimizing their body image. The role of the environment in optimizing well-being needs to be promoted to the same degree as individual responsibility for well-being. As well, harmful methods of weight management need to be discouraged.

Social policies need to be developed to empower individuals to optimize well-being by providing norms for wellness. Blaming individuals for their unhealthy lifestyles and shifting all of the responsibility for the development and sustenance of well-being to the individual assumes that wellness is understood and under the

control of the individual. Until norms for well-being are established, a problem-oriented focus will remain to guide health promotion.

Secondary Promotion: Early Identification of Practices Reducing Wellness

The identification and confrontation of excess weight by some males occurs when it becomes a major concern. This finding has implications for the development of messages targeted toward health promotion for males. To assist with the promotion of health as wellness rather than disease prevention the following suggestions or revisions need to be included in health promotion messages for males:

1. Factors reducing wellness need to be identified and strategies to revise these factors promoted.
2. Wellness programs need to identify areas in which individuals can optimize well-being.
3. A more comprehensive approach to wellness is needed in community fitness establishments, workplace wellness programs, and school wellness programs to cover all of the areas involved in enhancing the well-being of the individual.

Tertiary Promotion: Intervention to Increase Wellness

The findings from this study suggest that changes are required in commercial, community, and clinical weight management programs. The form and content of such programs need to be carefully tailored to the needs and demands of clients.

1. More assistance is required for some individuals to develop a realistic desired physical image and a vision of a healthier lifestyle.

2. Programs need to be designed to build lifestyle management, negotiation, and confidence skills rather than predominantly provide information.
3. Programs should be developed to empower individuals to effectively manage their lifestyles for maintenance of weight loss rather than loss of weight.

Until the subjective meanings of health are understood, weight control programs will be set up to meet the short-term expectations of clients. Strategies for weight control differ from those used for weight loss. Programs need to build the skill levels of individuals to allow long-term management of weight. The focus in weight control programs on strategies of change at the individual level does not translate to implementation of these changes in one's social environment. Intervention programs must change to include ways to optimize the facilitating features and reduce the diminishing components of the family and social environment.

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APPENDIX A

REQUEST FOR VOLUNTEERS

APPENDIX A

MEN WANTED!

SHARE YOUR STORY ABOUT WEIGHT LOSS

What happens after weight loss? Do males regain some or all of the weight loss, or keep it off for good? What are the frustrations and high points? I am a student in Family Studies at the University of Alberta who is collecting information about this subject. If you are a male between the ages of 21-50, who has lost weight and maintained this weight loss for a short or a long time, and willing to be interviewed, I would like to talk to you about your experiences. All information collected will remain confidential and your anonymity will be maintained.

YOUR HELP IS NEEDED FOR THIS IMPORTANT RESEARCH PROJECT.

Please call JEAN at 492-5141 between 9:00 am to 5:00 pm, Monday-Friday, or leave a message at 941-2478 for more information.

APPENDIX B

TELEPHONE SCREENING FORM

APPENDIX B

Telephone Screening Form

I have a few questions to ask you to see if you have had the experiences established as necessary in order to participate in this research project.

Nickname _____

Contact No. _____

1. How old are you? _____ (21-50)

2. What is your current weight _____ height _____
   Calculated BMI _____

3. How much weight did you lose? _____ (10% excess weight lost)

4. So you were _____ and are now _____ ?

5. Do you have plans to lose any more weight?
   Yes _____ No _____

6. How long have you been at your present weight? _____

7. What was your highest ever weight? _____
   height _____ Calculated BMI _____

8. Have you ever regained previously lost weight? Yes _____ No _____
   How much? _____ How often? _____

9. Do you have any medical reasons for weight loss? _____
   No _____ Yes _____ What _____

10. Do you have pictures of yourself at different weights?

Yes _____ No _____

Could we discuss them during the first interview?

Yes _____ No _____

What is the earliest convenient time to set up an interview time for you and I to discuss the required consent form and then begin the interview?

APPENDIX C

GUIDING QUESTIONS FOR INTERVIEWS

APPENDIX C

GUIDING QUESTIONS FOR INTERVIEWS

Tell me about your weight history. (Personal Story/Age)

Could you tell me if you had any difficult times with your weight? (Regression)

How about happy times with your weight loss or weight maintenance? (Success)

Tell me about the period between weight loss and now. (Time after weight loss)

What do the pictures say about your weight? (Perception)

Tell me if people react to your weight. (Perception of Others)

How important were/are other people to your weight? (Social Network)

Tell me about whether your work affects your weight or vice-versa. (Work)

Tell me if your weight affects/ed any areas of your life. (Lifestyle)

Tell me if your family has any affect on your weight. (Family)

Could you describe how you feel about your weight now? (Perception)

Why do you think you have hung in there when others haven't? (Critical Factors)

What are your reasons for maintaining weight loss? (Sustaining Factors)

APPENDIX D

DEMOGRAPHIC INFORMATION

APPENDIX D

Demographic Information

Nickname _____

Could you take a few minutes to fill out this form and I will pick it up at our next interview? (feel free to use the back of the paper for your comments)

1. What is your current marital status?

Single	____	Divorced	____
Married	____	Widowed	____
Separated	____	Other	____

2. Tell me if your marital status has affected or affects your weight.

3. Do you have any children living at home?
   No _____ Yes _____ If yes, then how many? _____

4. Tell me if you think the presence or absence of children matters to your weight.

5. What is your ancestral heritage? _____

6. Do you think your heritage affects your weight?

7. Do you have any health problems? None _____
   Cardiovascular ____ Metabolic _____ Other ____
   Cancer ____ Injuries _____ Disabilities _____

Describe any that you have checked:

8. Does your health affect your weight or vice-versa?

9. What is your highest level of education?

Grade School _____
Junior High _____
High School _____
Post Secondary _____ Type of Degree/Diploma _____
University _____ Yrs _____ Degree _____
Post-Graduate Degree _____

10. Does the amount of education you have achieved affect your weight?

11. What type of work do you do?

12. Do you think the type of work you do affects your weight or vice-versa?

13. Could you indicate your annual income? less than 25,000 ___
25,001-50,000 _____ 50,001-75,000 _____ 75,001-100,000 _____
greater than 100,001 _____

14. Does your annual income affect your weight or vice-versa?

15. What are your after-work activities/obligations?

16. What are your activities on weekends?

17. Do your leisure activities affect your weight or vice-versa?

APPENDIX E

FIELD NOTES

APPENDIX E

Field Notes

Date:

Interview #

Time:

Context: Describe the setting

- Accessibility
- Spatial
- Physical
- Social activities
- Positions
- Atmosphere

Non-Verbal Behaviour

- Appearance
- Facial Expressions
- Gestures

Impressions:

- Evaluation of interviewer
- Evaluation of interviewee

Insights:

- What is NB about this interview and why

Plans

APPENDIX F

INFORMED CONSENT FORM FOR MALE PARTICIPANTS

APPENDIX F

UNIVERSITY OF ALBERTA
FACULTY OF HOME ECONOMICS

INFORMED CONSENT FORM FOR MALE PARTICIPANTS

Project Title: Factors in a Male's Life that Affect the Maintenance of Weight Loss
Investigator: Jean Collins-Smith Work Contact No. 492-5141 (leave message at 941-2478)

The purpose of this research project is to develop an understanding of the factors that affect weight maintenance for males. Interviews will be conducted with each person participating in the study several times and each interview will last approximately one hour. During these interviews, you will be asked to describe your experiences with the management of weight loss. Each of these sessions will be taped and the information on the tapes will not be shared with anyone except myself and an experienced transcriber. I will use pseudonyms during the interviews and for all documents for the purposes of anonymity. The final report will contain some verbatim quotations but no names will be connected with these quotations. I will ask you for feedback about the wording and interpretations made for your interviews. If you wish information about the final report, arrangements will be made for this at the end of the study.

I have been given the opportunity to ask whatever questions I desire about the study and all such questions have been answered to my satisfaction. I understand that the investigator will not disclose my responses to anyone else beside members of the thesis committee. I am aware that the researcher's supervisor, Dr. Dianne Kieren, can be contacted at 492-8181 if I desire to do this.

I am therefore willing to participate in the study and I hereby give my permission to be interviewed several times and for these interviews to be tape-recorded. I understand that the transcripts and the tapes will be available for future research projects but my signed consent will be necessary for this data to be used again. I understand that these documents and tapes will be stored in a locked file cabinet at the home of the investigator as well as a copy of the written data will be kept at the university in a locked file cabinet. The university copy will be either destroyed after graduation or stored in the archives. I understand that the information will be available in the U of A library and may be presented at conferences, published in journals, or discussed in the popular media but my name will not be associated with the research.

I am aware that the researcher will not act in a counseling role but will offer information on available resources in the community if I request this. I understand that I am free to refuse to answer questions during the interview. I also understand that I am free to withdraw my consent and terminate my participation at any time without penalty.

I understand that I may not benefit from this study but that my participation may be helpful to other males who are attempting to maintain weight loss in the future. I have a copy of this consent form.

THIS IS TO CERTIFY THAT I, _____

_____ HEREBY agree to participate as a volunteer in the above named project.

_____ _____

Researcher Date